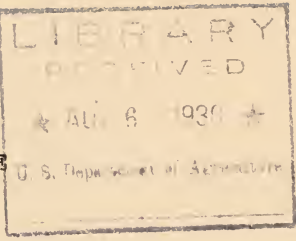


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UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF HOME ECONOMICS
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BIBLIOGRAPHY
ON STUDIES OF COSTS AND STANDARDS OF LIVING
IN THE UNITED STATES

by

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A Preliminary Report

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July, 1930

STUDIES OF COSTS AND STANDARDS OF LIVING IN THE UNITED STATES

Purposes of the studies undertaken

Research workers in the United States have been carrying on systematic studies of costs and standards of living since 1870, and have produced in that time more than 200 reports, some very brief, and a number covering more than 200 printed pages.

These investigations have been undertaken for many different reasons. In a large number of cases it has apparently been felt that an accurate presentation of the standard of living of a certain group and the cost of maintaining that standard was of such obvious value that no statement of the uses to which the results of the work might be put was needed. In other cases, very specific reasons are given for having undertaken the investigation.

The earliest study which we have found is that by Young of the Federal Treasury, "The Cost of Labor and Subsistence for the year 1869, as compared with previous years." The author gives no reason for having undertaken the investigation, but it is significant that it was begun in a year of monetary difficulties, when a revision of the tariff was under consideration.

A desire to obtain information about comparative living costs and standards is apparent in the earlier reports of the Massachusetts Bureau of Labor Statistics, in the studies published by the Federal Bureau of Labor Statistics in 1891 and 1892 and in the series of studies by the Board of Trade of Great Britain, one volume of which is concerned with conditions in the United States. None of these reports was completely successful in developing techniques for comparing living standards in countries where manners and customs are fundamentally different. The problem of devising satisfactory measurements of comparative living standards remains to be solved.

Periods of rising prices, with maladjustments between the purchasing power of customary wages and the customary standard of living, have been most prolific of studies of living costs. Federal and State Bureaus of Labor and Agriculture, social agencies engaged in family relief, and employers' organizations have an interest in knowing just what standard can be maintained with a given income, at the new price level. The 1903 report of the Federal Bureau of Labor Statistics was the outcome, at least in part, of the rise in prices which began in 1900. The increase in living costs at the time of the last war was the signal for a number of studies of living costs and standards, notably that by the Federal Bureau of Labor Statistics in 1918-19, analyzed by Ogburn in articles published in the Monthly Labor Review in 1919, and presented in detail in Bulletin 357, of the United States Bureau of Labor Statistics.

Studies of the cost of living at the standard of the professional group have been undertaken in part to determine whether or not salaries have kept up with living costs in periods of changing prices, and in part to demonstrate that teachers, (and college teachers in particular) are not receiving salaries commensurate with their training and ability, as shown by salaries in other professions with similar requirements, and that it is necessary to supplement teaching salaries by outside work.

In the period of rapid industrial development immediately following the Civil War there was great concern over factory hours and wages, and over the living standards which it was possible for workers to maintain with the wages being paid. The employment of women and children in factories was deplored in most states, and many of the early investigations were undertaken for the purpose of determining the number of families depending on supplementary earnings from wife and children. The question of minimum wages to be paid factory workers and the living standards which are possible in different places, for families or individuals dependent on these wages^{are} perennial and difficult problems. A large proportion of the State investigations reported on the following pages were initiated in order to help solve such problems. The same purpose lies behind the research of the National Industrial Conference Board in this field.

Federal and State bureaus and private philanthropic organizations have not infrequently studied living conditions where they were known to be somewhat unsatisfactory in order to ascertain the extent and the cause of the unfavorable conditions, and to uncover any variations which might suggest possibilities of improvement. An outstanding example of this type of investigation is that conducted by Chapin in New York City in 1907. After Chapin's records had been analyzed, he was able to indicate the income level at which it seemed possible, according to the evidence of the schedules, for a family of five with exceptionally good management and no unusual expense from illness or accident to maintain a satisfactory standard of living in New York City, and the somewhat higher income level at which the majority of families with fair management, and no indulgence in excesses might maintain a satisfactory standard.

Another very valuable study of this type is that by Kirkpatrick and Hawthorne on sources and uses of income among 300 farm families in a region of low incomes and expenditures in Ohio.

Two studies, with a similar purpose but in a more restricted field, have been conducted by Dickins of the Mississippi Agricultural Experiment Station. She has investigated the relationship of the amount of family income, the amount and value of food furnished by the farm to the family, and the amount and cost of food purchased to the health of families in districts where rickets and pellagra are prevalent.

Most studies of farm family living have apparently been undertaken for the purpose of presenting an accurate picture of the standards of living in the communities studied, but there are a few which have been initiated for the purpose of comparing urban and rural standards. Recent studies on this subject are those by Zimmerman at the University of Minnesota Agricultural Experiment Station, and by Geo and Stauffer at the University of Virginia.

Methods used in securing data

Throughout this report there has been an attempt to use the term "Questionnaire" to mean a form or list of questions sent out by mail to the persons from whom information was desired, and returned by mail; to confine the term "schedule" to lists of questions in the hands of an investigator who visits the family and obtains from some one (usually the housewife) estimates, as carefully checked as possible, on family expenditures and on other matters connected with the standard of living; and to use the word "record" to apply to account books kept by a family from day to day, recording expenditures and goods received without money expenditure at the time of the expenditure or receipt.

The use of questionnaires has not, in general, been successful in this country for the purpose of gathering information on costs and standards of living. The percentage of returns has been small, and the answers on the forms returned have been inaccurate and difficult to interpret.

The use of schedules has become the most common method of obtaining data. It is difficult, expensive, and frequently impossible to obtain enough account books from any given sample of the population accurately to present its standard of living. In particular, it is impossible to obtain account books kept for any length of time from families in the lower income groups.

It is generally recognized by investigators that data collected by the schedule method is apt to contain serious inaccuracies. This difficulty can be avoided in part by obtaining figures on amount and sources of income in detail, amount of expenditure in detail, and checking one against the other, discarding those schedules where it is impossible to obtain a reasonable balance. Another method is to supplement schedules with accounts kept for a month or more. This method was used by More in her study of living standards in the Greenwich neighborhood of New York City and to a lesser extent by Chavin in his study of workmen's families in several parts of Greater New York City.

Recent studies of the use of schedule and account methods in studying farm family living give additional emphasis to the need for supplementing schedules by accounts, and also indicate the necessity for supervising and editing accounts. A study undertaken by the Bureau of Home Economics of the United States Department of Agriculture, now nearing completion, compares accounts kept by certain farm housewives and sent in to the Bureau week by week with schedules covering same period, and obtained from these same housewives before they had seen the annual summaries of their accounts. A comparison of the two sets of data show a large degree of inaccuracy in the schedules. In particular the majority of farm housewives very greatly over estimated amounts of foods consumed when they were answering the interviewer's questions for the purposes of the schedule returns. As the women who took part in this experiment were above average in education and in economic status, the comparison seems to point to the need for further research into methods of obtaining data, and the Bureau of Home Economics expects to continue this study during the coming year.

The term "budget" has in this report been used to mean a systematic plan for future expenditures. Quantity budgets have been made up by different investigators in several different ways and priced in different communities. In using such figures it is important to distinguish between living costs computed by means of a hypothetical budget, and living costs calculated from actual family

expenditures, and to know the basis on which each set of figures was secured. The difficulties involved in pricing the same budget in different places arise from the lack of standardization of household goods and the consequent impossibility of knowing whether identical goods and services are being priced in different towns.

Numbers of families investigated

The number of families from whom information is secured varies greatly in the different studies. Studies based on accounts kept for a period of a year or more are not to be published on the basis of a small number of records because of the difficulty of securing such accounts, and the value of carefully compiled figures. Kyrk summarized the accounts of 10 Iowa farm families in a bulletin published in 1926; Lively presented the household accounts kept by 26 Ohio families from April, 1925 to April, 1926; Kirkpatrick and Hovestad published in 1927 a summary of the accounts of 25 farm families in Pine County, Minnesota.

The number of families included in studies based on schedules is usually larger. The largest number recorded in any one study is 25,440, the total number of families from whom schedules were gathered in 1903 by the Federal Bureau of Labor Statistics. The number of families visited in studies limited to a single state vary greatly. In recent studies of farm family living made by the State Agriculture Experiment Stations from 250 to 350 families have usually been included. The size of the sample selected in the various studies depends, of course, upon the number of economic groups considered, the character of the data secured and the amount of detail desired. Certain investigators have been working out methods for testing the representative character of the families from whom data has been obtained. (See Zimmerman and Black, and Anderson.)

Methods of analysis

It has always been recognized by American statisticians that it is desirable to take into account size and composition of family in analyzing figures on family expenditures. This has sometimes been done by restricting the investigation to families of a given number of persons, and sometimes by summarizing expenditures according to number of children in the family. Neither of these methods is entirely satisfactory because of differences in needs among adults and among children. The method originated by Engel, the Prussian statistician, of measuring family size in "adult units", was developed in 1890 by Wright at the Federal Bureau of Labor Statistics into a method for measuring the demand for food by families of different composition through a scale which is still in use by that Bureau. In the meantime, research has been under way in other organizations which has resulted in the development of scales for the purpose of measuring the demand for food which more accurately represent the dietary need of persons of different age, sex, and occupation, than does the Bureau of Labor Statistics scale. Technical Bulletin 8 of the Bureau of Home Economics of the United States Department of Agriculture discusses problems connected with developing scales for measuring the demand of food from the nutritional point of view, and an article in the Journal of American Statistical Association for September, 1929 presents the matter from the economic point of view.

The need for a scale to represent relative expenditures for goods of all kinds by persons of varying age and sex in different economic groups emphasized by Engel, and met by his scale of "Quets", for the group he was studying, was considered by Sydenstricker and King in 1922 in a study of illness as it is related to economic status in mill villages of South Carolina. Kirkpatrick and Thaden have both worked on the development of similar units for farm families. These scales will facilitate the interpretation of figures on living costs when the technique of their calculation and use has been perfected.

The problems connected with measuring living standards, as distinguished from living costs are legion. The measurement of the nutritive adequacy of food consumed has been most satisfactorily treated up to the present time. The first studies of this sort carried on in this country were made under the direction of W.O. Atwater in investigations relating to food consumption and food costs. Many of the early studies of wage earners expenditures contain discussions of dietary requirements without any attempt to measure the nutritive content of the food consumed by the group being studied. Chapin's study of the standard of living of workmen's families in New York City was one of the first to combine a dietary analysis of food consumption records from the group being studied, with figures on the whole range of family expenditures. Chapin was also successful in collecting quantitative figures on the housing and equipment of the families he studied which made possible a more accurate valuation of living standards than could have been made by using figures on money expenditures alone.

Some investigators have found the standards set up by the Federal Bureau of Labor Statistics in 1920 in its "Minimum Quantity Budget for a workingman's family of five" a useful measuring stick in evaluating living standards. This budget suffers, as do other studies using the word, from the difficulty of defining the word "minimum". Even in the extreme sense of "minimum for subsistence," the word is difficult of definition, but in the sense of "minimum for health and decency" or "health and comfort", it gives rise to a great deal of controversy, because of the impossibility of securing agreement on quantitative measures of the "minimum" under consideration. Except as future research establishes quantitative data on the relationship of certain standards to health, the use of the word seems undesirable. For the present, the field of nutrition comes nearer to providing complete data of this sort than any other. In other fields it is quite possible to set up quantitative standards or allowances for housing, clothing, and so on, to give all the evidence on which the standards were based and then to refer to them by the name of the organization sponsoring them, without claiming that anything so final as a "minimum" has been arrived at.

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The study of the relationships between different factors making up the standard of living has been a subject of some interest to students in this field in recent years. A study by Ogburn of the Standards of Living in the District of Columbia in 1916 uses correlation coefficients and regression equations for measuring the way in which expenditures for different goods used by the family vary with size of income and size of family. Some of the recent investigators of farm living standards have also applied coefficients of correlation to this field, along with the more usual tables of frequency distributions.

It has been impossible to complete the analysis of all the studies listed in the pages which follow, in time to send a copy of the bibliography to the Pan Pacific Women's Conference. All the studies here listed have been read and the authors are confident that all the different kinds of methods which have been used in studying costs and standards of living in the United States are represented in this preliminary form of the bibliography.

PART I

STUDIES BASED ON MATERIALS GATHERED FROM INDIVIDUAL FAMILIES, ARRANGED ACCORDING TO OCCUPATIONAL GROUPS

Section A. Studies of Costs and Standards of Living on Farms in the United States

Anderson, W. A.

1928. Living conditions among white landowner operators in Wake County.
N.C. Agr. Expt. Sta. Bul. 258, 49 p., illus.

A survey of cash receipts and cash expenditures, of products raised and of their disposal by 294 white landowner farm operators in the Piedmont section of North Carolina was undertaken by the Agricultural Experiment station of that state in the winter of 1926 for the purpose of ascertaining facts concerning living conditions among the group studied.

The report gives separate figures for the families surveyed in 18 different townships, and figures for the entire group in regard to the following matters; number of farm operators from whom schedules were secured; average age of operators; type of farming, average number of acres owned and operated in farm, average crop acres per farm; average size of family in persons; years of the farm experience of operators; birth place of operators; the average number of years spent by operators in different tenure classes; average cash income from farm crops, labor, animals, investments, and all sources; average distribution of all cash expenditures under the following headings, farm, investments, food, household, clothing, health, insurance, education, reading, personal, auto, church, recreation; distribution of living expenditures under the following headings, home and household, food and fuel, health, education, insurance, clothing, reading, personal, automobile, church and charity, social activities, total; books purchased and size of libraries; data on automobiles owned, and expenditures for automobile upkeep.

Further tables give the age distribution of all the men from whom schedules were obtained, the extent of their education, distribution of the cash income of the whole group from crops of different kinds, animals of different kinds, labor of different members of the family, and investments of different kinds; number and percentage of operators belonging in specified cash income groups. An analysis of the food and fuel utilized during a year shows the money value of different kinds of food, and of coal and wood purchased, and

produced on the farm. The goods produced were evaluated in terms of what they would have cost the farmers had they been purchased for cash. Data on clothing expenditures show average expenditures for all families on suits, shoes, dresses, coats, hats, work clothes, underwear, stockings, shirts, other clothes, and on their cleaning, and average amounts spent per person for individuals of different age and sex. A distribution by income groups shows the amount of total expenditures going to farm and investments. This tabulation is supplemented by another showing the kinds of goods purchased for the farm business, and still another showing numbers of farmers making investments of different kinds and the average amounts invested. Additional tables on expenditures for family living give average expenditures per family for the entire group for new buildings, building additions, paint, screening, general repair, household furnishings, telephone, household help and other household costs, doctors, hospital, nurse, dentist, oculist, medicine, birth, deaths, jewelry, toilet articles, candy, tobacco, gifts and other personal items. The number of families having automobiles of different makes, and the number of trips made for business and pleasure, the time consumed and the length of trip are also given. Figures presented on the physical environment of the families studied are as follows: the size of the houses occupied, the prevalence of different types of heating and lighting systems, average number of windows and outside doors per house. the per cent screened, the number of families having running water, or pumps in the kitchen, the distance water was carried by other families, the number having kitchen drains, refrigerators, indoor bath and toilet facilities, the average value of sewing machines, washing machines, and telephones, furniture per family.

Anderson, W. A.

1929. Farm Family Living among white owner and tenant operators in Wake County. N.C. Agr. Exot. Sta. Bul. 269, 101 p., illus.

This second study in the North Carolina series was undertaken for the purpose of comparing living conditions among landowning farm families with those prevailing among ^{tenant} families in Wake County. The figures on income and expenditures, crops raised, and their disposal by 294 landowning families presented in Bulletin 258 (summarized above) are again presented in this bulletin, but in slightly different form and are placed side by side with similar figures gathered by the schedule method from 300 tenant families. Each table gives figures from owner and tenant families separately. The kinds of data presented in the two bulletins are very similar, but in the earlier one the predominant method of presentation is by township averages, and in the later one by averages according to income groups.

The following kinds of data appear in the second bulletin but not in the first: the probable error of the sampling for both owner and tenant families; age and sex distribution of children at home; correlation tables showing relationship of number of years farmed and age of operators in each group, length of residence of tenant farmers on farm being operated when schedule was taken; number of tenants not having moved since they began farming; acreage devoted to different kinds of crops, number of families devoting different percentages of their total expenditures to clothing; numbers of families keeping farm animals of different kinds.

Anderson, W.A.

1930. Factors influencing living conditions of white owner and tenant farmers in Wake County, 1926. N.C. Agr. Expt. Sta. Tech. Bul. 37, 58 p.

The purpose of this study, the third study in the North Carolina Series, was to investigate the extent of changes in family living conditions among white farm owner and tenant families, as changes occur in some of the factors which affect living conditions. The data analyzed are the same as those presented in Bulletin 269, but different methods of analysis are used.

The items of expenditure for family living studied are those for food, fuel, clothing, automobile, personal items, home and household, and advancement. The chief question studied is "how are these items of family expenditure affected by the gross cash income of the family, the size of farms operated, the size of family, the educational status of the family head, the proportion of the family budget which is devoted to the farm business and farm investments, the value of food and fuel produced on the farm for family use, and by the inter-relationships existing between the items of expenditure themselves." Gross, partial and multiple correlation with the accompanying per cent determinations and per cent changes were employed to answer these questions. Size of family was measured according to the revised Atwater scale.

Bailey, I. M., and Snyder, M. F.

1921. A Survey of Farm Homes. Jour. Home Econ. 13: 346-356

This study presents the results of a survey of farm homes made in the spring of 1917 in selected areas of St. Joseph County, Michigan, comprising 91 farms, of which 72 were operated by owners and 19 by tenants. A few of the farms specialized in fruit raising or in dairying, but the majority were given over to diversified farming.

The report presents the data in the form of a general discussion which deals with character of farm, of house, composition of family, and social and economic conditions; averages and percentages are given in the text to clarify the discussion and make comparisons possible. The points covered are as follows: extent to which livestock, orchards, gardens, grounds are reported; condition of houses, number of rooms, storage facilities, water supply and sewage, heating and cooking arrangements, modern conveniences and labor-saving devices, employment of household help, length of working day, and time spent on special kinds of work; the average size of family, number of children, hired help, etc.; income, expenditure for food, clothing, fuel, health, reading matter, railway fares, and household help, and comparison of household expenditures with money derived from poultry and dairy products (the homemakers' contribution); general character of social and community life.

Black, J.D., and Zimmerman, C.C.

1927. Family living on successful Minnesota Farms. Minn. Agr. Expt. Sta. Bul. 240, 25 p., illus.

From a study of 694 farm families in 13 communities of Minnesota, 65 families (50 owners and 15 tenants) were selected as the most successful, in that they made the largest incomes and lived the best; and the data for these families are analyzed to show their home comforts and conveniences, and the amounts that they expended for various items that enter into family living.

For the 50 owner families average cash expenditures, and the percentage which each is of total cash expenditures, are given for the following items: farm expenses, automobile expenses, mortgage interest, payment on principal of mortgage, family living, life insurance, and investments (exclusive of life insurance). The outlay comprised under the term "family living" is itemized, showing average cash expenditure and percentage of total family living for each item, as follows: food, clothing, fuel, house furnishings and operating expenses, health, advancement, personal.

Living conveniences are indicated by the ownership of automobiles, the average number of rooms per family, the quality of furniture and furnishings, and the number of homes equipped with central heating and lighting plants, water and drainage systems, and washing machines.

In order to show the relative cost of farm and city living, estimate is made of the probable city rentals for equivalent types of housing, the probable cost of specified items of food furnished by the farm, and the variation in cost of other factors, the use of which depends somewhat upon environment. As a concrete example, the expenses of Minneapolis school teachers' families, as computed by Royal Meeker, are compared with these 50 successful farm-owner families, on the score of average family size, expenditure for each of the items, fuel, light, water, clothing, automobile, upkeep, and provision for the future; this discussion is then summarized in a table which gives the equivalent city cost of those items which are furnished by the farm, and the extra cost in the cities of those items which both farm and city families must purchase.

Comparison is also made between these 50 families and 157 farm families studied in 1924, on the basis of expenditure for farm expenses, automobile, investments, clothing, personal items, advancement, health, and house furnishings, operation and fuel; and between these 50 families and 30 less prosperous neighbor families, on the basis of money expended for food, clothing, advancement, automobile, and investment. Other facts presented in reference to the 50 owner families are, the extent to which farms are encumbered and the extent to which such debt is being reduced; the degree of education which the children of these families are receiving; the average cash receipts from specified sources, and per cent which each is of total income; for the groups engaged in each type of farming (grain, dairy, other livestock, truck), the percentage distribution of income from specified sources, and the average cash expenditure for living, farm, auto, investment.

The 15 successful tenant families are compared with the 50 successful owner families on the following points: average size of farm and amount of indebtedness; average family size; average cash receipts; average cash expenditures for family living, farm (excluding rent), rent (cash only), interest, principal of mortgage, other investment, life insurance, automobile, food, clothing, house furnishings, etc. (including fuel), health, advancement, personal, total cash expenditure. To facilitate comparison of the group of 65 families with families of normal income, 488 Minnesota farms are classified according to specified amount of cash receipts in 1924 and 1925, and for each group there is shown the number of families, the average income, the average farm expenditure, and the average remainder. A presentation of material computed from census data, showing for Minnesota farms, for the years 1900 to 1926 inclusive, the average gross cash receipts, the average expenditure for taxes, income and wages, and the average amount remaining, gives some indication of the economic condition of farmers as compared with other social classes.

Clark, E. L.

1927. Average clothing expenditures of 86 farm families of Franklin County, Vermont, during 1923-24.

U.S. Dept. Agr., Bur. Home Econ. Prelim. Rpt., 53 p. (Mimeographed)

This study, which was made under the auspices of the Bureau of Home Economics of the United States Department of Agriculture, in cooperation with the Extension service of the University of Vermont, presents a detailed analysis of the clothing expenditures of 86 farm families in Vermont, at first separately, and then combined with figures on the clothing expenditures of 1,488 farm families in New York, Kentucky, Ohio, Missouri and Alabama. All the figures utilized in this report were collected by the schedule method in connection with a larger study of the standard of living of farm families, and were summarized in part with figures from other states by E. L. Kirkpatrick in a bulletin on "The Farmer's Standard of Living". The estimates obtained in Vermont cover the year ending June 1, 1924, and in the other states a year sometime between September 1, 1920 and August 31, 1924. Average clothing expenditures per family are compared with the total value of family living, for each state. Average clothing expenditures per person for Vermont, and then for the six states combined, are presented for four different value of living groups. For each group figures are given on average expenditures for clothing of all kinds, and for headwear, outer garments, undergarments, footwear, accessories, and for upkeep and repair by individuals of each sex, classified according to age, and marital status. Average expenditures for sons and daughters below three years old are grouped together. The study concludes with a detailed account of garments made at home and garments purchased ready-to-wear for all persons in the 86 Vermont farm families. This material is to appear in permanent form in a printed bulletin, covering the clothing expenditures of 1425 families.

Clark, E. L., and Kirkpatrick, E.L.

1925. Average Quantities and costs of clothing purchased by farm families.

U.S. Dept. Agr., Bur. Home Econ. and Bur. Agr. Econ. Prelim. Rpt., 24 p. (Mimeographed)

This report presents in detail the number, kinds and costs of articles of clothing purchased in the year 1922-23 by individuals in 1337 farm families living in selected localities in Ohio, Kentucky, Missouri and Kansas. The data were collected by the schedule method in connection with a larger study of farm living standards made by the Bureau of Agricultural Economics and of Home Economics in the United States Department of Agriculture, in cooperation with state universities and colleges. The figures in this report were summarized in part with clothing expenditure figures from other states in a bulletin on "The

Farmer's Standard of Living" by E.L. Kirkpatrick, and are to appear in final form in a bulletin of the Bureau of Home Economics covering the clothing expenditures of 1425 families. This preliminary report was published in order to put the most complete data then available at the disposal of research workers. The average clothing expenditures for family are shown for each state in relation to the total value of family living, and for the four states gives the average expenditures of husbands, wives, sons, and daughters for all types of clothing and for headwear, outer garments, undergarments, footwear, accessories, and upkeep and repair. The expenditures for sons and daughters are given in six age groups for each sex, with the figures for children under one year grouped together. Further tables present for each one of these age and sex groups, for the four states combined, the number of persons purchasing each kind of article of clothing, the average number of articles purchased per person and the average cost per article.

Dickens, D.

1927 A study of food habits of people in two contrasting areas of Mississippi. Miss. Agr. Agr. Expt. Sta. Bul. 245, 52 p., illus.

This study, intended to show relation of dietary conditions to health, was made in typical counties and among representative families in the Brown Loam and the Short Leaf Pine area; 53 families in the first area, and 47 in the second, kept under intelligent supervision, daily records of food furnished from the farm, purchased and wasted, over a period of 2 weeks.

The report consists of general discussion of the areas studied, food habits and preparation, methods of calculating diet, comparison of results with the standard set by Sherman, vitamin content, home raised products, and seasonal variations in food consumption. Specific information for each of the areas is offered in tables and graphs as follows: number of families having specified number of members; number of husbands, wives, children, in specified age groups; number of families, and chief occupation of family, in each area, average gross income, and number of owners and non-owners; number of food records received, complete and incomplete, and average nutritive value per man per day for each of the 5 chief nutrients (energy, protein, calcium, phosphorus, and iron); number of families with diets 10% or more below standard for each of the 5 nutrients; frequency distribution for each nutrient; percentage distribution of each nutrient among 9 specified food groups, and for calories, percentage distribution in each of the 4 seasons, also; food supply, items and weight, consumed during the 2-week period (a) by a family in which the children showed evidence of rickets, and (b) by a family in which the children showed no signs of rickets; a list of the foods most commonly consumed, showing the amounts of each used during 2 weeks, in each of the 4 seasons; a week's menu (a) from a family having a monotonous diet, and (b) from a family having one of good variety; number of families spending specified amounts for food, per man

per day; average percentage distribution of cost among 9 food groups; percentage furnished and purchased, by seasons, and for each food group; number of families and average intake for each nutrient, for diet of specified cost per man per day; number of families with yearly income of \$2000 and over, and \$1200 and under, spending specified amounts for food, per man per day; percentage of adults and of children having specified physical defects; relative frequency of defects of specified character found in the children of 16 families having a satisfactory diet, of 26 families on diets below standard in one factor, of 33 families on diets below standard in more than one factor; percentage of families showing specified symptoms indicating poor general health, and percentage having specified illnesses in 1926; average increase during 1926 in height and weight, for boys and girls, by age groups.

A short bibliography is appended.

Dickins, D.

1928 A nutrition investigation of negro tenants in the Yazoo-Mississippi Delta. Miss. Agr. Expt. Sta. Bul. 254, 52 p., illus.

This record of nutrition in the Yazoo Mississippi Delta was initiated for the purpose of obtaining new data on the food consumption of a group where the death rate is very high and pellagra is prevalent. Records were obtained of the amounts of food consumed by 80 negro farms in four different counties for one month, beginning in February, 1927. Two negro women in each of the farm counties supervised the records, visiting each family each day for the month of record keeping. Only families in which there was one member who could read and write were selected. Size of family is given in persons, and in adult male units according to the Hawley energy and protein-mineral scales. Average gross cash income per family is given by plantations. Graphs present the nutritive value of food consumed per adult male unit per day, and the per cent of the families which were 10 per cent or more below standard for each nutrient. The writer presents the relationship of home food production, and of different methods of paying for food to the nutritive content of the family diet. Foods raised at home were priced at average retail selling prices found in the stores of the nearest town and the total money value of foods consumed calculated. Two frequency distributions present average money value of all food consumed and the nutritional content of diet as compared with its money value. Relationship of money value of food is given to amount of total income. The study concludes with a bibliography on Negro food consumption and health.

Frissell, F. B., and Revier, I.

1899. Dietary studies of negroes in Eastern Virginia in 1897 and 1898.
U.S. Dept. Agr. Off. Expt. Sta. Bul. 71, 45 p., illus.

This study was conducted under the immediate supervision of W.O. Atwater, and constitutes a part of the nutrition investigations of the United States Department of Agriculture, Office of Experiment Stations. It is presented in two parts, the first part dealing with negro farmers of the Dismal Swamp region in Franklin county, and the second part, with negro families engaged in various employments, and living in the immediate vicinity of Hampton, Elizabeth City county.

For the first group, data consists in 12 dietary records, waste as well as food supplied the family, obtained during May and June, 1897, and covering periods of from 7 to 30 days. There is, for each individual family, a brief description of family composition, and of home and farm, followed by a table showing the length of time covered by the study, the kinds and amount of food consumed, the cost and nutritive value (protein, fat, carbohydrates, and fuel value) of food per man per day for each food, for waste, and for the diet as a whole.

The material for the second part was collected in the spring of 1898, and in addition to a discussion of homes and surroundings of the families studied, comprises 7 dieteries which are presented in the same manner as those in Part I. For purposes of comparison, a summary is given which shows cost, and protein, fats, carbohydrates and fuel value, per man per day, as follows: for each of the 19 Virginia families; for all 19 combined; for 4 Alabama families with minimum and maximum protein and energy consumption; for 20 Alabama families combined; averaged for 4 Mexican families in New Mexico; for 14 mechanics' families; for 10 farm families; for 14 families of the professional class.

An appendix gives percentage composition (refuse, water, protein, fats, carbohydrates and ash) for each kind of food appearing in the dieteries.

Funk, W. C.

1914. What the farm contributes directly to the farmers' living.
U.S. Dept. Agr. Farmers' Bul. 635, 21 p., illus.

This bulletin is the result of a study carried on during the summer of 1913, to determine the value of that part of a farm family's living which is furnished directly by the farm. In order to represent variations in products due to climate, type of farming, and length of growing season, 10 areas were studied, as follows: cotton districts in North Carolina, Georgia, and Texas; dairy regions in Vermont, New York, and Wisconsin; corn growing districts of Iowa and Kansas; and general farming districts of Pennsylvania and Ohio. Families were visited at random within these selected districts, and estimates sought from farmers and housewives on the value of products furnished by the farm for household use; this method resulted in the securing of satisfactory records from 483 families, 72% of whom were farm owners and 28% tenants, fairly evenly distributed through the 10 areas.

The information thus obtained is presented under the following points: proportion of the farmer's living expenses furnished by the farm; size of family (the Atwater adult-male-equivalent scale is used); food consumption and relation of food cost per person to size of family; fuel consumption; house rent; water supply; labor; cost of board and lodging; for owner and renter families, relative value, per family and per person, of total food consumption and of food furnished by the farm. Tables as enumerated below, give data for each of the 10 areas, with averages and totals for all areas combined: number of families, average number of persons, and average yearly value, per family and per person, for food, fuel, and rent furnished, and for food, fuel and oil purchased; average farm acreage, and average yearly cost per family of furnished, purchased and total food, percentage of food consumption purchased, percentage purchased, and value per person of total yearly food consumption; percentage distribution of food consumed among 4 major groups (groceries, animal products, fruits, vegetables), and percentage of each group purchased and furnished; average yearly consumption per person, pounds and value, of specified articles of food; percentage of pork, beef, poultry, furnished by farm, and percentage of all meat consumption furnished, purchased; for families of 2 and 3 persons, 4 and 5 persons, and 6 persons and over, the number of families reporting, and the yearly value of purchased, furnished and total food consumption; the amount and value of yearly fuel consumption, classified as coal, wood, oil, corncocks; the average yearly value of all fuel consumed, with per cent purchased and furnished; the yearly wood consumption, cords and value, per family and per person, with per cent purchased and furnished; the average value at time of study, of 361 farm dwellings; the average cost, per family and per person, of household labor, for families of specified size; the yearly value of food, fuel, and household labor chargeable to board, and of food, fuel, household labor, oil and rent chargeable to board and lodging, for hired help, with the average yearly and monthly cost per person of board, and of board and lodging.

Funk, W.C.

1916. Value to farm families of food, fuel, and use of house,
U.S. Dept. Agr. Bul. 410, 35 p., illus.

This report, intended to show the value of products which the farm furnishes directly to the farm family, is an extension of the data published by the same author in Bulletin 635 (above), and is based on information obtained by the survey method during the summers of 1913 and 1914, from 950 farm families in widely separated sections of the country. The localities and the types of farming represented are as follows: Georgia, North Carolina and Texas, cotton districts; Iowa and Kansas, corn-growing; North Dakota, grain-growing; New York, Vermont and Wisconsin, dairy; Maine, dairy and apples; Ohio and Pennsylvania, general farming; New Jersey, market gardening; California, irrigated fruit district.

The material is presented in a number of tables, each accompanied by a brief discussion, and indicates for each region studied, the number of families reporting, the average size of family, the average acreage per farm; the average yearly value per family and per person, of that part of the family living which is farm furnished, and percentage which it is of the total value of family living; the relative value of furnished and purchased food and value of consumption per family and per person; percentage distribution of food value into 4 major groups, with per cent in each group purchased and furnished; the average yearly value, per family and per person, of meat products, dairy products and poultry products, with relation of furnished to purchased; the effect of family size, and the effect of high consumption of specified groups of food, upon cost of the diet; the average quantity of specified foods consumed yearly per family and per person, with the average amounts furnished by the farm, and purchased; for 150 families in 3 southern states, and 800 in 11 northern and western states, the average quantity consumed per person and per family, and the percentage purchased, for each of 52 articles of food; value per person of total food consumption, and percentage purchased and furnished, for owners and for renters; average amount and value of coal, wood, and oil, consumed yearly per family; average value and average yearly rental value, of 825 farm dwellings, and for 4 selected localities, relation of size of house (number of rooms) to size of farm, value of house, size of family, and value of food consumed per person; on basis of value of food, fuel, and household labor chargeable to board, the monthly and yearly cost per person of board on the farm, and the percentage actually paid out in cash.

Gee, W., and Stauffer, W. P.

1929. Rural and urban living standards in Virginia, Va. Univ. Inst. for Research in the Social Sciences, Inst. Monog. 6, 133 p.

This study was begun in September, 1928, for the purpose of comparing the standard of living of poor, intermediate, and prosperous white families living under rural and urban conditions in Virginia. The rural families were located with the aid of the county agricultural agents in Culpeper and Bedford counties. The urban families studied live in Lynchburg, where the secretary of the Retail Merchants Credit Association, the secretary of the Chamber of Commerce, the responsible official of the Associated Charities and similar persons, gave the authors information in regard to the residential districts where representatives of each economic group might be found. The samples studied include 137 rural families (40 poor, 85 intermediate, 12 prosperous) and 140 urban families (35 poor, 78 intermediate and 27 prosperous). All tables give separate figures for each economic group.

The analysis of the farm families' standard of living presents average size of family, and average total value of family living, under the following headings: food, clothing, rent, fuel and light, cost of automobile used by family, others household operating expenses, household furnishings and equipment, health, personal, advancement and recreation, and life and health insurance. A summary classification gives money value of goods satisfying "primary wants." The value of food consumed per adult male energy unit is presented showing value of food purchased, and value of food produced and consumed by the family. Food produced on the farm was valued in terms of wholesale prices in the nearest market. Further tables show average expenditures per family for church, charity and gifts, number of families investing in insurance, expenditures for advancement and recreation inside and outside the home. The figures on farm family living in eleven states collected under the supervision of F.L. Kirkpatrick in 1922-24 have been rearranged and are presented so as to show comparisons between the value of various groups of goods and services received by the three groups of Virginia farm families in 1928 and by three similar but larger groups of farm families in other states in the earlier period.

A chapter on social and environmental factors gives for each group of families average number of children living at home, and away from home, years between births of children, average number of years of formal schooling, of husband, wife, and children over fifteen, number of fathers and mothers having attended a certain number of years of elementary and high school and college, percentage distribution of children now in school, and with school completed in college, high school and elementary school; and occupational status of children over fifteen years of age living at home, and not living at home. A final table presents average utilization of time by farm families under the following headings: hours in working day, summer and winter, hours spent in reading, number of visits in community per month, number of trips to town by family per month, number of trips for pleasure or rest per year, per cent of families entertaining at home, and outside home rarely, occasionally and frequently.

The analysis of urban family living is presented in a similar way. Clothing expenditures are compared with the clothing allowances in the Chicago Standard budget for dependent families, and housing accommodations with the certain standard housing requirements. Another table gives amount spent for reading matter by city and farm families. The occupational status^{of parents} as well as of children over fifteen years of age is given for the city families studied.

The study is concluded with an analysis of the foods consumed by city and farm families in Virginia by Dr. Edith Hawley of the Bureau of Home Economics of the United States Department of Agriculture. This analysis gives in detail the average amounts of foods consumed per man per year by each group of families, and the amount of energy, protein, calcium, phosphorus and iron furnished per man per day by the diet of each group. In calculating the nutritive value of the diet, size of family was measured according to the Hawley energy and protein-mineral scales. The standard used in measuring good nutrition is as follows: 3300 calories, 74 grains of protein, 0.75 gram of calcium, 1.45 grams of phosphorus, and 0.0165 gram of iron per man per day. The economy of the different diets is also measured by comparing the distribution of energy among the various food groups in the diets studied with the distribution recommended by C. L. Hunt in United States Department of Agriculture, Farmers' Bulletin 1313.

Hawley, E.

1926 Average quantity, cost and nutritive value of food consumed by farm families. U.S. Dept. Agr., Bur. Home Econ. Prelim. Rep., 29 p.
(Mimeographed)

During the year 1923, a survey was made among 1331 farm families in Kansas, Kentucky, Missouri and Ohio by the Bureaus of Agricultural Economics and of Home Economics of the United States Department of Agriculture; and schedules were obtained comprising data on all items of family living for the year just previous to the taking of the schedules. The study in hand utilizes these 1331 records in an analysis of food habits, consumption and cost, and covers such points as the number of families reporting from each state, and the average number of persons per family; the double scale for measuring food requirements; possible sources of error in arriving at food consumption figures; food habits as indicated by the foods reported; nutritive value (amount of energy, protein, calcium, phosphorus, and iron) of the diets; and cost.

Information on the last 3 points, given for each state and for all states combined, is comprised in the following tables; a list of foods reported, with the number of families using, the consumption (quantity and cost) per family and per adult male unit, and proportion (quantity and cost) purchased; the nutritive value per adult male unit, its percentage relation to a given standard of adequacy, and the distribution of energy among specified food groups; comparison

of nutritive value and energy distribution for these 1331 farm families with the same data for (1) a group of 950 farm families studied by Funk (United States Department of Agriculture Bul. 410) and (2) about 12,000 workmen's families throughout the country (United States Bureau of Labor Statistics Bul. 357); average yearly value of the food consumed per family, and its relation to the average value of family living; average yearly value of the food consumed per adult male unit, and its distribution among the major food groups.

Hawthorne, H. W.

1925. The family living from the farm. U.S. Dept. Agr. Bul. 1338, 30 p., illus.

Information obtained in farm business surveys made by the United States Department of Agriculture and the state agricultural colleges and experiment stations, is utilized in this bulletin for the purpose of showing the significance of the family living furnished by the farm (1) in relation to cost of living of farm families, to farm receipts, and to farm, labor and family income, (2) in relation to size of farm and size of family, and (3) in comparison with the cash returns from the farm business in times of agricultural depression and prosperity. The records here assembled, comprising 30 localities in 21 states, number 7738, and represent varying types of crops, farming and marketing conditions, as well as a period of general prosperity among farmers (1918-19), and a period of general depression (1921-22). Data is presented as follows: value of family living from the farm in general; localities studied, with uses of land, crop yields, and principal receipts for farm business; the family living from the farm for the 7738 families studied, showing for specified localities, the number of families reporting, the date of reporting, the average number of adult male units per family, the average yearly value per family of farm furnished food, with quantities and value of 10 specified foods, the quantity and yearly value per family of wood furnished, the yearly value per family of house rent, the yearly value per family and per adult male unit of all items of family living furnished by the farm; the general economic situation of the 7738 families as indicated by farm acreage, capital, receipts, expenses, farm income, labor income, farmer's labor, unpaid family labor, value of the family living derived from the farm, and family income; the average value of family living from the farm as related to acreage, size of family, farm receipts, farm income; the proportion of tenants to owners, and average size of farms operated by both.

There is also given a list of publications relative to farm organization and management, and to the value of family living furnished by farms in the localities included in this study.

Johnson, O. R.

1924. Costs of family living on the farm. Missouri Agr. Exot. Sta. Bul. 213, 20 p., illus.

This investigation was undertaken by the Agricultural Experiment Station of the University of Missouri for the purpose of determining the annual cost of the farm home, in money and in labor. Financial records were obtained from 30 families for different years in the period from 1912 to 1922, and labor records from eight housewives from 1912 to 1915. Average farm labor income and average money cost of family living are compared with a price index for farm products for each year of the period covered. Average money costs for the entire period per family and per "person" are presented under the following headings: Groceries, meats, clothing, household supplies and repairs, school supplies, doctor, dentist and medicines, fuel, hired labor and their board, life insurance, amusements, travel and club dues, benevolence, personal, tobacco, candy, etc. and miscellaneous. A money value is assigned to products furnished by the farm and to the use of the house. The number of "persons" per family was calculated by taking all individuals over ten years of age as 1.0, and all individuals less than ten years of age as 0.5. Average length of the housewife's work day in eight farm homes is presented for each month of the year, and the average for all months is divided between meals, care of house, care of children, laundry, sewing, garden, poultry, dairy, marketing, personal, recreation, canning and preserving, outside and miscellaneous. The average number of hours in different months devoted to maintenance are compared with those devoted to "productive" work, and the number of hours indoors with the number outdoors. The results of the time records of rural housewives are compared with one record from a city housewife.

Kirkpatrick, E.L.

1923. The standards of life in a typical section of diversified farming. N.Y. Agr. Col. (Cornell) Agr. Exot. Sta. Bul. 423, 133 p., illus.

The material for this study was obtained by a survey made among farmers of New York state -- the farm business data was obtained between April 1, 1918 and March 31, 1919, by the Department of Agricultural Economics and Farm Management, of Cornell University; and the family and household data between September 1, 1920 and August 31, 1921, by the Department of Rural Social Organization of Cornell University, and the Bureau of Agricultural Economics and Office of Home Economics, United States Department of Agriculture. Of the 410 records taken in Livingston county during the second survey, 402 (295 owners, 107 tenants) are here used in a consideration of what factors, material and non-material, constitute the standard of life, and the proportional part these factors play, and their interrelation with each other, in the quality of living.

(This bulletin contains the data to be found in the same author's publication, appearing as Bulletin 1314 of the United States Department of Agriculture.)

The study may be divided into four sections, (1) descriptive of general living conditions, (2) dealing with the distribution of expenditures, (3) the factors that constitute the standard of life, and those pertaining to the farm business, tabulated so as to develop their significance in the whole, and their relation to each other, and (4) the mathematical degree of relationship between these factors, as evidenced by co-efficients of correlation.

Detailed information is found in the first section on the location and character of the area studied; the types of tenure and the number of persons comprising each type; the family and household composition, with age and extent of education of members; number of cases of minor and of serious illness, with average duration, and number, average age, and family relationships of those chronically disabled; the number of farms having orchards, shade trees, shrubs, lawns, and the number of houses having specified characteristics, conveniences, and items of household equipment generally regarded as luxuries; the average number of rooms per capita and the average value of house per family, for families of various sizes; comparison of home environment, as exemplified in modern equipment and comforts, of these Livingston county families with 142 farm families in Blackhawk county, and 85 farm families in Clay county, Iowa.

The section on distribution presents first a table of percentage distribution of family expenditures among the main items of family living, as formulated by Engel, and as developed for American workmen, with a brief scrutiny also of some important American studies. For the 402 Livingston families, data is offered as follows: average yearly value of food consumed, of fuel and light used, with per cent of each furnished by the farm, and average cost of rent; summary of value of family living (showing values for purchased and furnished goods separately) itemized as food, clothing, rent, fuel and light, operating expenses, health, advancement, personal expenditures, and incidentals; percentage relation of values of food, clothing, rent, fuel and light, and all other items, to the total value of family living. Comparison is also made, in point of time and locality both, with the results of other specified studies. The cost-consumption-unit (c.c.u.) is discussed as a method of reducing to a comparable basis data from families of different composition; scales are given for determining the c.c.u. for food, clothing, rent, fuel and light, operating expenses, health, advancement, personal expenses, and incidentals; the yearly expenditure per c.c.u. for each of the foregoing items is given for families having specified numbers of children; and the per cent of total expenditure, per family and per c.c.u. assignable to each of the items, food, clothing, rent, fuel and light, and all other expenses.

The section dealing with factors of business, home and family living offers a tentative list of such factors with their relative values in determining the standard of life, and shows the efficiency of such a scale of values, as exemplified in the results it gives when used with the 402 Livingston county families. Specific tabulations are as follows: comparison of the farm home (value of house

and value of farm) with the factors of farm business, acres per farm, total capital per farm, work units, crop index, per cent of receipts from crops, per cent of indebtedness on operators capital, income from operators capital and labor, labor income; relation of size of farm business (classified by specific numbers of acres operated, specific amounts of capital invested, and specific numbers of work units) to income from operator's capital and labor, to labor income, to expenditure, all purposes, per c.c.u., to per cent of expenditure for advancement, per c.c.u., to average expenditure on social values and on total values, per family; relation of average crop index, and of average percentage of receipts from crops, to average social values and to average total values per family; relation of percentage of indebtedness to average expenditure, all purposes, per c.c.u., to average per cent of expenditure for advancement, per c.c.u., to average of social values and of total values, per family; relation of tenure to average social and to average total values per family; relation of value of house, value of furnishings, expenditure for church (all classified by specified value groups), newspapers and magazines (classified by specified numbers), education of parents (classified by highest grade reached), to average expenditure, all purposes, per c.c.u., to per cent expended for advancement, per c.c.u. to average social values and to average total values per family; relation of education of parents, for 128 families only, to average expenditure, all purposes, per c.c.u., to per cent expended for advancement, per c.c.u., to average social values and to average total values per family, to average value of furniture per family, to average value of house, to average acres per farm, to total capital per farm, and to work units per farm; relation of education of children, for three selected groups of families, to average expenditure for church and to crop index per farm, in addition to the factors enumerated just above; relation of length of work day (by specified number of hours), of expenditure for all purposes, and of per cent expended for advancement, to average social values and to average total values per family; average of specified factors for 25 owners and 25 tenants ranking highest, for 25 owners and 25 tenants ranking lowest, for all owners and for all tenants; highest and lowest expenditure per c.c.u., highest and lowest averages for social and for total values per family.

Coefficients of correlation are given for the following combinations: income from owner's capital and labor, labor income, expenditures for all purposes, per c.c.u., percentage of expenditures for advancement, per c.c.u., social values per family, and total values per family, each correlated with acres per farm, total capital per farm, and work units per farm; crop index per farm, and percentage of receipts from crops per farm, each correlated with social values per family and total values per family; average expenditure for all purposes, per c.c.u., and percentage of expenditure for advancement, per c.c.u., each correlated with value of house per family, value of furniture per family, and social values per family; social values per family and total values per family, each correlated with value of house per family, value of furniture per family, and expenditure for church, per family.

Copies are given of the schedule forms upon which information was obtained, and a bibliography and list of references cited is also supplied.

Kirkpatrick, F.L.

1926. Average expenditures for household furnishings and equipment purchased by farm families. U.S. Dept. Agr., Bur. Agr. Econ. Prelim. Rpt., 14 p. (Mimeographed)

The material presented in this bulletin is part of a larger study, done in cooperation with the Bureau of Home Economics and dealing with cost of living data for about 4000 families as obtained in surveys that were made during the summers of 1923 and 1924 and cover the year just previous to the taking of the schedule. In this report there are used records of 368 Kansas families, 370 Kentucky families, 178 Missouri families and 383 Ohio families -- a total of 1299 records representing 872 farm owners, 388 tenants and 39 hired men.

The term "household furnishings and equipment" as used in this study, comprises the following items: canning equipment, brooms, brushes, vacuum cleaners, bedding, curtains and portieres, furniture, linoleums, rugs, other floor coverings, household linens, lamps, musical instruments, pictures and ornaments, tableware, irons, tubs, washing machines, wringers, laundry equipment not elsewhere specified, sewing machines, dress forms, cutting tables, electrical appliances, portable gas engines, stoves, trunks and suitcases, and refrigerators and miscellaneous items.

All figures are on a yearly basis and are given for each of the 4 states, for the 4 states combined and for tenure groups as represented by (1) owners and (2) tenants and hired men. For each item of goods used, as given above, the following information is available: number and per cent of families purchasing, average expenditure per family and per family purchasing; a summary by states and tenure groups gives the average number of persons in household and in family, the average value of all furnishings and equipment purchased, the average value of all family living, the average value of family living purchased, and the percentage relation of the average value of furnishings and equipment to the value of family living purchased and to the total value of family living; a summary of all 1299 families classified according to total value of family living gives in addition to the factors listed just above, the number of rooms per house and per person.

Kirkpatrick, E.L.

1926 The average quantities and values of fuel and other household supplies used by farm families. U.S. Dept. Agr., Bur. Agr. Econ. Prelim. Rpt., 13 p. (Mimeographed).

The material presented in this bulletin is part of a larger study, done in cooperation with the Bureau of Home Economics and dealing with standards of living in about 3000 farm homes. The records were assembled during surveys taken in the summers of 1923 and 1924, and covering the year just previous to the taking of the schedules; data used here are for 1377 typical farm homes (898 owners, 400 tenants and 39 hired men) located in Kansas (406), Kentucky (370), Missouri (178) and Ohio (383).

Fuel as here enumerated includes wood, coal, kerosene, gasoline, electricity, matches, and "other fuel", purchased, and wood furnished by the farm and evaluated at the prices of cord wood ready for household use; "other fuel" comprises acetylene plant supplies, and, in a few cases, gas for lighting purposes; household supplies other than fuel include laundry and toilet soap, cleaning powders, lye, laundry starch and bluing.

All figures are on a yearly basis and are given for each of the 4 states, for the four states combined, and for tenure groups as represented by (1) owners and (2) tenants and hired men. For each item of goods used, as given above, the following information is available: unit of measure, number and per cent of families reporting, average amount and value per family and per family reporting, average value per unit; summaries give the average value of all fuel consumed and of furnished and purchased fuel, average value of all household supplies used, the average number of persons in household and in family, average value of all farm living, average value of family living purchased, proportion that the average value of all fuel, the average value of household supplies and the average value of fuel and household supplies combined is to the average value of all family living.

Kirkpatrick, F.L.

1926. The Farmer's standard of living. U.S. Dept. Agr. Bul. 1466, 63 p. illus.

This report represents the results of a number of separate studies carried on by the United States Department of Agriculture in cooperation with 12 colleges or universities, from 1922 to 1924. Schedules on family expenditures and on the goods produced by the family for home use were obtained from 2,886 white farm families in eleven states, New Hampshire, Vermont, Massachusetts, Connecticut, Kentucky, South Carolina, Alabama, Missouri, Kansas, Iowa and Ohio. The money value of home produced goods utilized during the year was computed, and figures are presented by states on the average value of all goods used, subdivided under the following headings; house rent furnished by the farm, food, operation goods, fuel, furniture and furnishings, clothing, maintenance of health, advancement, personal goods, life and health insurance, and unclassified. Figures on food and fuel are subdivided to give value of goods furnished by the farm and of goods purchased. The following material is presented in terms of averages for three different geographic regions; data on cost of clothing for persons of different age and sex; extent of modern plumbing, heating and lighting in the farm homes surveyed; details as to expenditures for operation, advancement and personal goods. Figures are presented for 1,662 farm families on the distribution of the total value of family living for families of varying size with children of different ages. The relationship of the distribution of the total value of family living is given to the following factors; age of homemaker, length of homemaker's work day, schooling of farm operator and homemaker, vacations taken by homemaker, number of acres per farm, acres operated per farm, and in the case of owners, number of years operator had been farm owner, mortgage indebtedness, and income other than that from farm business.

Kirkpatrick, E. L.

1926 Housing conditions among 947 white farm families of selected localities of Texas. U.S. Dept. Agr., Bur. Agr. Econ. Prelim. Rot., 19 p. (Mimeographed)

A housing investigation in Texas was undertaken by the Bureau of Agricultural Economics of the United States Department of Agriculture in cooperation with the Agricultural and Mechanical College of Texas. Data were gathered by the schedule method in regard to 947 farm houses in nine different counties, as depicting housing conditions in the year ending June 30, 1924. The information given is classified under the following headings: size and age composition of families studied; length of residence in houses occupied, age of house, number of rooms in houses, height and areas of houses, screened and unscreened porches, window area, heating systems, plumbing facilities, exterior and interior finish, value of house, source of water supply, distance of water supply from house, distance of water supply from privy, kinds of toilet facilities. Frequency distributions are given for each of the factors just listed, separating the figures for owner and tenant families, and in addition seven tables at the end of the report show for the 947 houses, the relationship between age of house, number of persons in the household, value of house, number of rooms, floor area, cubic feet of space, and window area per house.

Kirkpatrick, E.L.

1928. Annual family living in selected farm homes of North Dakota. U.S. Dept. Agr., Bur. Agr. Econ., Prelim. Rot. 17 p. (Mimeographed)

Sixty-five farm management cost accounts kept by fifty-six families covering variously the calendar years 1923, 1924 and 1925 were collected in cooperation with the North Dakota Agricultural College and comprise the material of this report. Tables show for each individual account gross farm receipts, total farm operating costs, excess farm receipts, inventory change, farm income, purchased family living, change in capital or accumulated savings; also the following figures on goods purchased for the family, money value of all goods purchased, of food, clothing, furnishings and equipment, and of expenditures for health. A summary for the 65 accounts divides total value of family living and value of goods purchased among the following groups: food, clothing, rent, fuel, operation goods except fuel, furnishings and equipment, maintenance of health, advancement, personal, insurance, and unclassified.

Kirkpatrick, E.L. and Hawthorne, F.W.

1923. Sources and uses of income among 300 farm families of Vinton, Jackson and Meigs Counties, Ohio, 1926. U.S. Dept. Agr., Bur. Agr. Econ. Prelim. Rot., 29 p. (Multigraphed)

This study was undertaken by the Bureau of Agricultural Economics in cooperation with the Ohio Agricultural Experiment Station and Ohio State University to learn of conditions of farming and of family living in a region of low incomes and expenditures, to establish bases for programs of improvement of farming and family living, and to canvass the questions of whether there is other employment of farm people and other uses of land which will insure larger benefits to those concerned and to the State.

The report shows the sources and uses of income among 300 farm families in three localities drained by the Ohio river and its tributaries. Data were obtained by the survey method, by two groups of field workers; one group obtained information from the farm operator on the amount and source of income, and on the farm expenses; the other obtained information from the homemaker on the uses of income for family living and on goods furnished the family by the farm.

Average amounts and sources of total farm income and distribution of expenditures are given by cash income groups. Farm business summaries give averages for the three hundred farms and for four groups of farms selected because of differences in location and management. The following items are presented in each of the four summaries: size of farm, capital, receipts, expenses, farm income, interest on capital at 5%, labor income, return from farmer's labor, percentage return to capital, and value of family living from the farm.

Average total value of family living is given under the following headings: goods furnished by the farm, goods purchased, food furnished by the farm, food purchased, clothing, rent (furnished by farm), furniture and furnishings, operation goods furnished by the farm, operation goods purchased, maintenance of health, advancement goods, personal goods, life and health insurance, unclassified. Percentage distribution of total value of family living among these different groups is given according to value of living and according to cash income. The same grouping is used in giving percentage distribution of average value of the various items family living according to number of children in the family.

Average distribution of value of living by 25 families whose standards were rated highest by the field workers is also presented under these headings along with certain averages on the farm business of these 25 families.

Cost of clothing for individuals of both sexes is given in eight different age groups. Average length of work day and average amount of time spent in reading, resting, and recreation, is given for all operators and all homemakers. Figures on average age of husbands and wives, and of sons and daughters at home; number of children born to these families but dying before the study was made; place of residence; occupation of sons away from home; education of sons, daughters at home, and of those who had left home, appear in a final section of the main report.

An appendix gives detailed figures in four cash income groups in sub-groups classified under the following headings: uses of land, yield per acre, livestock, months of labor, capital, receipts, crop sales, farm expenses, farm income, labor income, percentage return to capital, farmers' labor and management, family living from the farm (food, fuel, and rent), food purchased, furnishi g and equipment, operation goods purchased, transportation, health goods, advancement goods, personal goods, life and health insurance.

Kirkpatrick, F. L., and Hoverstad, A. T.

1927. Family living in 25 farm homes of Askov, Pine County, Minnesota, for the year ending December 31, 1925. U.S. Dept. Agr., Bur. Agr. Econ. Prelim. Rpt., 16 p. (Mimeographed.)

This study was made in cooperation with the Department of Agriculture of the University of Minnesota, among 25 Danish farmers, engaged chiefly in dairying, and located in the vicinity of Askov, Pine County, Minnesota; for the year ending December 31, 1925, these families kept careful and complete accounts of farm and household receipts and expenditures, and these records are here analyzed to show uses to which the farm family income was put, and kinds of goods acquired and consumed.

The report comprises some tables, and discussion of location; type of farming; financial condition as evidenced by investments exclusive of operating expenses; classification adopted to describe goods used; the distribution of the total family living among the various items, as an index to the standard of living; individual items of the family living of the farm families here studied. The tables present the following data, all on a yearly basis for each family: number of persons; total family income; excess receipts from farming; household and personal receipts; value of family living purchased, divided among food, clothing, furnishings and equipment, health, and all other items; total value of goods furnished; total value of all goods used, divided among food (furnished, purchased and total value), clothing, rent, and all other items; in a summary of the 25 families, average amounts received from specified sources, average amounts expended for total family living and for accumulated savings; in a summary of the 25 families and of 2886 farm families, in eleven states, studied in 1922-24, the average family size, the total value per family of all goods consumed, the average value and percentage of all goods purchased, and of goods furnished by the farm, and the percentage distribution of total family living among the items, food, clothing, rent, fuel, operating expenses, furniture and furnishings, health, advancement, personal, insurance, and all other items not specified; a second comparison among these two groups of farm families, classified according to value of family living, shows the number of families, average size, average value of family living, and percentage which was expended for food, clothing, rent, and all other items.

Kirkpatrick, E.L. and Sanders, J.T.

1925. The cost of living among colored farm families of selected localities of Kentucky, Tennessee and Texas. U.S. Dept. Agr., Bur. Agr. Econ. Prelim. Rpt., 13 p. (Mimeographed)

This study was undertaken as a cooperative enterprise between the Bureau of Agricultural Economics of the United States Department of Agriculture and the State Colleges of Agriculture in Kentucky and Tennessee. The material presented in the report was obtained by the schedule method and is tabulated as depicting living conditions in the year ending January 1, 1920. All colored families having an adult male acting as farm operator and as adult female acting as homemaker within the localities chosen were visited. One hundred fifty-four usable schedules were obtained, 11 from Kentucky, 126 from Tennessee and 17 from Texas. Seventy-two of the families were classed as croppers, 47 as tenants and 35 as owners. In each table comparative data are given for 861 white farm families in the localities studied. Average size of family and size of household, and average ages of husbands, wives, sons and daughters are given by land tenure. Total value of family living, separating value of goods purchased from value of goods furnished by the farm is given for all families, and for owner, tenant and cropper families separately, under the following headings, food, clothing, rent, furnishings, operating, health, advancements, personal, insurance, and unclassified. Average number of rooms per house and average value of furniture are also given by tenure. A distribution by total value of family living gives number of families in each value of living group, average size of family and of household, average value of family living and percentage comprised by food, clothing, rent, furniture and furnishings, operating, expenses, maintenance of health, advancement, personal, life and health insurance, and unclassified, and proportion of total living furnished by the farm.

Kirkpatrick, E.L., and Sanders, J.T.

1926. The relation between the ability to pay and the standard of living among farmers. U.S. Dept. Agr. Bul. 1382, 32 p.

This study was done in cooperation with the Oklahoma Agricultural and Mechanical College, for the purpose of determining the relation between the standard of living and the ability to pay, as a step toward solving the larger problem of the relationship between economic status and standard of living. The report is based upon information obtained by field agents for the year ending December 31, 1919, from 861 white farm families located in Kentucky, Tennessee and Texas, and engaged in raising cotton, tobacco, or livestock, or in diversified farming. It comprises the following data: measurement of families by cost-consumption scales (adapted to each class of goods consumed) to reduce them to a comparable basis; average yearly value of family living, for different tenure groups, separated into food, clothing, rent, furniture and furnishings, operating expenses, health, advancement, personal expenditures, insurance, and unclassified items; percentage distribution of expenditure among the classes of

goods just enumerated, for these 861 families and for farm and city families previously studied; significance of "advancement" expenditures as an index to the standard of living; relation of other specified factors to the standard of living.

Conclusions are drawn to the general effect that economic status, standard of living and ability to pay, all react upon each other.

Kyrk, H.

1926. Cost of living on Iowa farms Pt. II, Household Expenditures, Iowa Agr. Exp. Sta. Bul. 237, p. 58-79

In the three years 1922, 1923 and 1924 the Home Management Specialist in the Extension Service of Iowa State College persuaded 50 farm women to keep records of the cash expenditures of their families in order to improve the management of their finances. This report utilizes fourteen of these account books, kept by ten families. Data is given on average total expenditures with separate figures on average expenditures for food, clothing, furnishings and equipment, fuel and light, household supplies, personal supplies, services, telephone, automobile, other operating expenses, health, organization dues, books and newspapers, formal education, benevolence, gifts, travel, personal allowances, tobacco and cigars, and all other recreation.

Lively, C.F.

1925 Cost of family living on the farm. Report of cost of living studies on 26 Ohio farm families. April 1, 1924 to April 1, 1925. n.p. (Mimeographed)

This study, conducted under the auspices of the Department of Rural Economics of the Ohio State University, purposes to show the cost of family living on the farm as expressed in terms of money spent and value of farm products used from the home farm, and distribution of the value of family living. Information was obtained from 26 families located in specified sections of Ohio, who kept under the supervision of home demonstration agents, detailed household accounts for cash expended and farm products used during the 12 months ending April 1, 1925.

The report comprises the following data: system of classification by which to allocate costs; methods of evaluating farm products used by the family; percentage distribution of total value of family living and of total cash expenditure, among the main items of the budget; seasonal distribution of the cash expenditure; average size of family, and quantities of farm products used;

total value of living for each family, showing value of purchased and furnished goods, and percentage which each is of total value of family living, for the items food (divided into specified groups), clothing, operating expenses, house furnishings, education, recreation, health, organization dues, church, life insurance, and unclassified items; for specified commodities furnished by the farm, the total quantity used, the number of families using, the maximum, minimum and average quantities used, the total value, the average value per family, the total value at Columbus (Ohio) retail prices, and the percentage difference between farm and Columbus prices.

Muse, M., and Brooks, C.P.

1929. Comparative study of data on farm household expenditures obtained by household accounts and by a survey. Vt. Agr. Exp. Sta. Bul. 294, 32 p., illus.

Thirteen farm families of Western and North-Central Vermont during the year ending October 1927 cooperated in supplying data for a comparison of the relative accuracy of the account and survey methods of obtaining data on farm family living. The information comprises summary figures on the money value of all goods and services consumed, goods and services produced by the farm, goods and services purchased, savings, clothes, furnishings, rent, operating goods, produced by the farm and purchased, health, education, recreation, personal, church and charity, other gifts, automobile and miscellaneous; and detailed data on the money value of food supplied by the farm and food purchased. The method employed was to have accounts kept regularly by the families under study, and schedules made out, without referring to the "account" records, at the close of the year.

Peck, F. W.

1916 The cost of living on Minnesota farms. Minn. Univ. Agr. Expt. Sta. Bul. 162, 31 p., illus.

This study is based upon data obtained by special agents from 22 farmers in 3 specified localities in Minnesota covering periods of from 5 to 8 years; this data is offered as a basis (1) for estimating annual expenditures on Minnesota farms, (2) for determining wages for farm help and for fixing the total cost of man labor, and (3) for arriving at a better understanding of gross income in farming as a business. The term "cost of living", as used in this report, means only the items food, labor, equipment, fuel and rent (whether furnished or purchased); "adult equivalents", as a basis of measuring family size were arrived at in the manner here described: "Children old enough to perform regular farm labor equivalent to regular hired labor were considered as adults. Others were estimated at certain proportions of adults according to age, size, work performed, and amount of food consumed, according to the judgment of the route agent."

The report comprises the following information, given separately for each specified locality: average rates per hour of man and horse labor, and average number of hours and cost of specified types of labor per family, for the period 1905-1914; yearly cost per person, 1905 to 1914 inclusive, of the items food, labor, equipment, fuel and rent; family size in adult-equivalents for each year 1905 to 1914 inclusive, amounts and values of specified items of farm produce consumed yearly per person; for ten specified commodities, local prices for each year 1905 to 1912 inclusive; the total yearly "cost of living", the cost of the items, purchased food, farm produce, labor, equipment, fuel and rent, and the percentage relation between each of the foregoing items and the "cost of living", all calculated on a per family and a per person basis; the cash expenditure yearly and monthly, per family and per person, for the items, food, fuel and labor; food costs analyzed according to specific groups of foods, and on a monthly, a daily, a per meal and a per person basis; food costs, per person compared with rent, equipment and fuel costs per person; cash expenditure and proportionate value of yearly consumption per family, in the period 1905-1914, for purchased food, farm livestock products and farm vegetables.

Ohio Bureau of Labor Statistics
1894 Seventeenth annual report (1893):9-841

A compilation of farm statistics was undertaken by the Bureau as their most important project for 1893, for the purpose of supplying "real information for the wide misconception and lack of technical knowledge which prevails not only in the minds of the outside public, but among the farmers themselves. Logical reasons cannot be given why agriculture should not be made the subject of the same official inquiry that is applied to manufacturing, mining, common laboring and other pursuits." The study covers $7\frac{1}{2}\%$ of the total acreage of the state, including 61 counties selected so as to represent the entire farming population. The chief objects were to ascertain the returns realized by the farmer on the capital invested, and on his labor, separately. Questionnaires were sent to 20,000 farmers throughout the state; the list was made up by county auditors who selected 27 farmers for each township, chosen to represent four different classifications by size of farms, fifteen thousand questionnaires were returned; only a part were satisfactorily filled out for compilation of data. Data on size of farms, taxes, cash value, and value of buildings and of machinery is given by townships and summary by counties. Farm mortgages are summarized for each county, in terms of acreage mortgaged, value of farms and amount of indebtedness, and purposes for which the mortgages were incurred. Classification by purpose is subdivided as follows: purchase money, including incumbrances created to buy other land; buildings, improvements and repairs; purchases of agricultural implements, machinery and stock; investments in business and other than farming; personal obligations and expenses; sickness; other purposes. The study of mortgages covers 290,379 acres of mortgaged land and represents 70 per cent of the mortgage indebtedness for the total area studied. Cost of living for 7,897 families is given, for each family listed under its township, giving the following data: number of acres in farm, whether or not mortgaged, acres under cultivation, number of persons in family; total amount paid from April 1, 1892 to April 1, 1893, for (1) groceries; (2) shoes and clothing; (3) furniture and household goods; amount of savings during this period. This data is totalled by counties. Data on farm labor is presented as follows: Wage rates for male and female farm labor, in winter, and summer and harvest, with and without board, and total amount paid hired help from April 1, 1892 to April 1, 1893, number of families living and working on farms besides the family of the chief operator; and wages and privileges allowed such families given by townships, for each farmer employing help, together with size of farm. An acreage of 1,292,955 acres is covered in this section of the report, or 90% of the total acreage studied.

Family and educational data is presented from 9,659 families, covering 51,717 persons for each county, giving number of families, total number of persons in the families, number of boys and number of each sex attending common school during term; number of each sex attending high school or college. Individual records are not shown. A separate table gives occupations engaged in other than farming, by 3,758 farmers' sons. 95 occupations are listed and the number in each is given. Capital invested in farm machinery is given by number of each kind (mowers, etc.) valuation, and acreage, for each county. Selling prices of 27 articles of food and of soap, cotton, coal and iron are listed for Cincinnati, Columbus and Cleveland from 1825 to 1893 by highest, lowest and average for each year.

Rankin, J.O.

1927 Cost of feeding the Nebraska farm family. Nebr. Agr. Expt. Sta. Bul. 219. 36 p., illus.

The Department of Rural Economics, University of Nebraska cooperated with the University's Agricultural Experiment Station and with the Bureau of Agricultural Economics, U.S. Department of Agriculture in this study. It covers the 12-month period ending May 30, 1924, and comprises schedules from 342 farm families located in four "typical" areas in different parts of Nebraska. The purpose of the survey was to determine kind, quantities and costs of food consumed by Nebraska farm families and extent to which food supply is farm-furnished; the published results give information on quantities of food, with some material on percentage distribution of the money value of food consumed.

Taylor, C.C. and Zimmerman, C.C.

1923 Economic and Social conditions of North Carolina farmers. 87 p. (North Carolina, Dept. of Agr. Tenancy Commission.)

This bulletin presents a study of the causes and effects of farm tenancy in North Carolina, begun because of the concern of the State Board of Agriculture over the high percentage of tenancy in the State. The study was made under the direction of a committee appointed by the Board. The tenants and croppers studied are almost wholly growers of cotton and tobacco.

The area surveyed included 1,014 farm families. Each family was interviewed personally and asked more than 700 questions about farm production, farm ownership and farm life.

All the material presented in the report is tabulated in terms of averages for all the families surveyed and for the families in the three different counties studied, one on the Coast Plain, one in the Piedmont, and one in the mountains giving in each table separate averages for Operators-Landlords, Owner-Operators, Tenants and Croppers, and separate averages for white and black families for each tenure class. The report gives average money values of family living ^{raised} ~~classed~~ and ^{purchased} ~~unclassed~~, average amounts of different foods raised per family, annual cash income per family and per individual, use of short time and intermediate credit, average wealth and equity per family, tenure status of the father of present operator and per cent of present operators having a different status from their fathers. The data in regard to the homes in which these families live give averages for the following items; number of rooms, number of persons per room, number of persons per bed room, number per bed, number homes with separate sitting rooms, dining rooms and parlors, with bath tubs, indoor toilets, running water, clothes closets, heat other than fire place, lights other than lamps, washing machines, vacuum cleaners, kitchen sinks, telephones, refrigerators, and rugs. Material on

windows gives per cent with no screens in homes, per cent partly screened, per cent with broken window lights, and average number of window frames per home. Tables on wall-treatment, porches, basements and sleeping porches conclude the description of homes.

The material presented on health and sanitation, gives use of doctor, expenditures for doctors fees, drugs and patent medicines, attendance at births, average still births per family, per cent vaccinated for small pox and inoculated for typhoid, per cent of wells open at top, depth of wells, pollution of wells, number, kind and condition of privies, and care of garbage and dishwater.

The section on education gives material on number of parents who can read and write, number having attended school, length of time having attended school, per cent of children six to fifteen who can read and write, per cent of families who take different kinds of papers and magazines, average number of books in home, per cent who borrow books, and kinds of books.

Connection with and attendance at various kinds of religious institutions is given in detail. Data on recreation includes average times each person participated in community recreation in the preceding year, and number of kinds of recreation per person, per cent of families which participate in no form of community recreation; per cent of homes with musical instruments of different kinds, per cent having automobiles, per cent having buggies, per cent having no road vehicle for family conveyance, per cent of parents members of some community organization and average number of visits per family per year.

Thaden, J. F.

1928 Standard of living on Iowa Farms. Iowa Agr. Expt. Sta. Bul. 238.
(Revised) p. (82-136. illus.

This study was made among 451 farm families -- 212 owners and 239 tenants -- in certain areas of Boone, Story and Sac counties, Iowa, during the year ending July 1, 1923. "All families within the areas surveyed were interviewed and their expenditures and activities were listed and analyzed in order to note the forces and factors that control or influence living on the farm." Families were reduced to a comparable basis by use of household size indexes. The scales used in computing these household size indexes were developed from the material gathered in this survey to represent the relative money values of food, clothing, rent, furnishings and equipment, operating, health, advancement, personal insurance and unclassified goods consumed by persons of different age and sex. Average value of family living of all 451 families, classified by increase in number of children in family is given per family and per "cost-consumption unit", for all the items listed above. Families are grouped according to total value of family living per cost consumption unit, and the following material is presented for each group: number of families, average size of families and of households, average money value per cost consumption unit, percentage distribution of money value of goods consumed among the items listed above, percentage of food and fuel furnished by farm, length of work day, average value of furniture and average size of farm.

Bringing out the point that expenditures for advancement, mark a family's progress forward from a mere subsistence level, and that educational, economic, social and religious factors are closely involved, tables are presented showing for all families, and for owners and tenants separately, the average total value of family living per cost-consumption unit, and the per cent devoted to advancement. Then the families are classified according to each of the following circumstances; number of acres, value of farm; value of house, extent of education of operator and homemaker, and of children; number of volumes in home library, and types of reading matter; membership in social organizations and amount of organization dues; attendance at church and contributions to church organizations; vacations; extent of city residence of operator and homemaker; extent to which farm help is employed. According to an ascending scale of percentage of total value of family living devoted to advancement, data is offered as follows: number of families; age of operator; extent of operator's schooling; extent of schooling of children 16 years or older; size of family; length of work day; size of farm (acres); value of furnishings; average total value of family living per family and per cost-consumption unit; percentage of total value of family living represented by each of the items, food, clothing, rent, furnishings, operating expense, health, advancement, personal, and insurance; per cent of food furnished by farm; per cent of fuel furnished by farm; per cent of total living furnished by farm.

A short bibliography is appended.

Von Tungelin, G.H., Thaden, J.F., and Kirkpatrick, E.L.

1928 Cost of living on Iowa farms. Iowa Agr. Expt. Sta. Bul. 237 (revised) 62 p., illus.

This study, carried on by the Iowa State College Agricultural Experiment Station and the United States Department of Agriculture, had as its purpose the determining of actual facts on living costs of a farm family, evaluating at local market prices those items of consumption furnished by the farm; between July, 1922 and June, 1923, staff members of the Iowa Agricultural Experiment Station interviewed 472 farm families in Boone, Storey and Sac counties, each family having an adult male acting as operator and an adult female homemaker. Information was obtained covering the 12 months preceding the taking of the schedule.

The points brought out in the discussion and the tables are as follows: nationality; household composition; educational, economic and social conditions; cost of living; and the rising standard of living as exemplified by a comparison of the results shown by Eden, Engel, Le Play, the United States Bureau of Labor reports for 1891 and 1919, the Groton, New York Study of 1919, the Livingston county, New York study of 1921, and the Iowa Study of 1923.

Tables give the following data; size of household, of family, and average age of operators, homemakers, sons, daughters; per cent of all families, and of owner and tenant families separate, taking specified types of reading matter; number and per cent of owners and tenants operating specified number of acres; per cent of all families, and of owner and tenant families separate, having nursery stock; value of home, extent of modern conveniences. Distribution of

the total cost of family living, amount and per cent, is shown for all families combined, and separately for families of owners, tenants, and hired men, for each of the succeeding items: food; clothing; rent; furnishings and equipment; fuel, auto, hired help and other operating expenses; health; advancement (formal education, reading matter, organization dues, church, benevolences, vacation and trips, and other items not specified); personal; insurance, life and health; unclassified expenditures. Distribution of the total cost of family living, amount and per cent, is shown also for owners, tenants and hired men separately, in each of the 4 districts, for the items food, clothing, rent, furnishings and equipment, operating expenses, health, advancement, personal, insurance, and unclassified items.

The average value of food and of fuel furnished by the farm is shown for families of specified sizes; the average cost of clothing, by age groups and by sex, for families of owners, tenants and hired men.

Comparison is made, for family composition, value of living furnished by the farm, amount and percentage distribution of money value among the main items of a family budget, and number and per cent of families falling within specified income groups, for New York (Livingston Co.), Missouri, Kentucky (Mason Co.), Alabama, Ohio (Delaware), Texas, Tennessee, Connecticut, Kansas, Massachusetts, and New Hampshire. Comparison is also made of average yearly value (amount and per cent) for food, clothing, rent, furnishings, fuel and light, and miscellaneous items, for 451 Iowa families and 12096 industrial families of the United States, studied in Bulletin 357 of the U.S. Bureau of Labor Statistics.

To exemplify Engel's law, the material is arranged by specified levels of total expenditure, giving number of families in each level; average size of family and of household; average total expenditure; per cent for food, clothing, rent, furnishings, and equipment; operating expenses, health, advancement, personal, insurance; per cent of food, of fuel, of total family living, furnished by the farm.

Williams, F.M. and Lockwood, J.E.

1930 An economic study of food consumed by farm and village families in Central New York. N.Y. (Cornell) Univ. Agr. Exp. Sta. Bul. 502, 52 p., illus.

An investigation of food consumption habits among farm and village families in Central New York was initiated at the Cornell University Experiment Station in the fall of 1925 at the request of the New York State College of Home Economics. The purpose of the investigation was to determine the cost of an economical but adequate diet which conform to the food habits of families in that part of the country. The results presented are based on food consumption records kept by 106 families for the period of a month. Food purchased and food produced on the farm and consumed by the family were both recorded. Foods produced on the farm were valued in two different ways: in terms of wholesale prices to determine how much money the family would have received if the food

consumed had not been used by the family but had been sold, and in terms of retail prices to determine what these foods would have cost if the family had been obliged to purchase them at a retail store. Actual money expenditures for food and the retail value of food produced at home were added together to give figures on the retail value of all food consumed.

Each record was analyzed as to its energy, protein, calcium and iron content, in relation to the dietary needs of the household where it was made. Dietary needs were calculated on the basis of standards found in Chemistry of Food and Nutrition by H.C. Sherman, and Foundations of Nutrition by M.S. Rose.

Family size was measured in terms of energy units and in terms of adequate food cost units, computed on the basis of the data collected in this study. Average money expenditures for food and average retail value of all food consumed are presented separately for farm and for village families, and for families adequately and inadequately fed, according to the nutrition standards adopted for the study. The range of retail value of all food consumed is given for each group according to seasons, and according to differences in caloric consumption in relation to estimated caloric needs. A separate table shows the average amounts of different foods produced on the farm and consumed by adequately fed farm families with varying money expenditures for food. Another table shows for adequately fed farm families arranged according to money expenditures per energy unit per day, the following data: average money expenditures, average wholesale value of all food produced, average retail value of food produced, ~~average retail value of food produced~~, average retail value of all food consumed, average number of energy units per family, amounts of different foods consumed by groups of foods, calories consumed per energy unit per day, and grams of protein consumed per energy unit per day. Similar data is present for adequately fed village families.

Adequate low cost food budgets are presented for persons of differing caloric requirements, computed on the basis of the food consumption given in the 59 records showing adequate diets. Methods of payment most commonly used in buying foods are given for 60 families. Tables are presented giving the number of families recording the purchase of shortening, canned fruits and vegetables, coffee, and breakfast cereals by brand, distinguishing between families recording the purchase of nationally advertised, chain store, and other brands and those recording no brand at all.

Wisconsin Bureau of Labor, Census, and Industrial Statistics
1896 Seventh Biennial Report (1895/96): 1-135

This report presents the results of an investigation undertaken among the farming population of Wisconsin. Of over 5000 questionnaires mailed out, 549 were returned, and for each individual reporting: birthplace, marital status, number in family, number months school attendance of children, years farmed, number acres in farm, number under cultivation, value including improvements, interest paid on mortgage, products and yield, cost of production of different grains, cost of raising wool, opinion as to most profitable brand of farming, number of men employed in summer and in winter and wage rate in each season, what the pay includes (board, washing), comparative increase or decrease in farm labor wage with rate of 1 yr., 2 yr. and 3 yrs. previous; number of women employed in summer and winter and wage rate for each season; statements whether or not savings or debts were accumulated during past year, and during past five years; whether or not life and fire insurance was carried; whether or not member of grange or similar organization, and whether or not member of beneficiary organization. Whether or not any increase or decrease in cost of living during the past year, and other questions of opinion on farm problems. Summary tables are given for individual questions, and many individual answers are quoted on the general questions of cause of farm failures and on suggestions for ameliorating the condition of the farmer.

Zimmerman, C.C., and Plack, J.D.

1927 How Minnesota farm-family incomes are spent. Minn. Univ. Agr. Expt. Sta. Bul. 234, 49 p., illus.

This bulletin is presented as the beginning of a series of rural life studies undertaken for the purpose of obtaining information as to the quality of rural living. The authors say, "Text must come definite and concrete suggestions as to how rural living can be improved through detailed studies of the homes in which farm people live, of household comforts and conveniences, food budgets and clothing budgets, health and sanitation, forms of recreation, education and other forms of advancement. It (the program) also calls for the consideration of the way in which income is divided between current living, current farm expenses, capital investment in the farm business, savings, and advancement."

This first study is based on a survey of 357 families conducted during the fall of 1925. Investigators visited about 50 contiguous farm families in seven different counties.

Two types of schedules were used, one a short schedule giving data on family living expenditures only, and one a long schedule, giving more complete information. The investigators secured 157 long schedules and 200 short schedules. In order to show the representative character of the data, figures are presented for each county visited, on the average size of all farms and of those surveyed, and on the percentage of all farms, and of farms surveyed which are rented. One third of the cash receipts of the farmers in the communities studied came from live stock, and almost one third from grain and other crops. The following material is presented for each of seven communities: per cent of population foreign born, and per cent natives of first generation, number of families furnishing data, their average cash receipts and expenditures, number families spending in excess of current receipts, number of those with less than average receipts; maximum, minimum, and average cash receipts; distribution of average expenditures for farm, for living, for investment, for automobiles; average distribution of living expenditures for food, clothing, housing, health, advancement, and personal; average cost of dental care per family, per cent of families in which some member had dental examination during year; per cent of individuals who had dental examination during year; childbirth expenses; data on reading, including average amount spent for reading per family, per cent taking daily papers; per cent taking foreign language papers, average number of pieces of second class mail received per family, percentage that purchased books during the year, total books purchased, average size of library, percentage having no books in the home; percentage taking trips costing \$2 or more, average expenditure for travelling; advancement expenditures as follows: amount spent per family, per adult equivalent, per cent of living expenditures, per cent of total expenditures; expenditures for clothing per adult equivalent, percentage of families who purchased from mail order houses, average mail order purchases per family; average size of household in persons, and in adult equivalents, cash spent for food per adult equivalent; percentage of meat and butter consumed which was home produced, percentage of families growing orchard fruit and small fruit, average number of vegetables grown; average annual consumption of flour, sugar, sirup, coffee and tea per family, and of flour, sugar and coffee per adult equivalent; average adult consumption of meat and poultry and proportion raised at home; average amounts of dairy products, eggs and potatoes consumed per adult equivalent; farm expenditures, with sub-totals for operating expenses, insurance, taxes and cash rent, poultry purchases, machinery expense, farm building expense, farm land expense; average farm operating expense by groups; average land tax per farm owner, and per acre, per cent of expenditures of land owners for taxes; distribution of payments on investments, as follows: interest on funds borrowed, paid on farm, on life insurance, and all other.

Certain figures are given by cash receipts groups, including percentage of families having the following home improvements, sewing machine, washing machine, central heating plant, modern lighting system, home laundry, bath tub, indoor toilet, water in kitchen, drain from kitchen, percentage not always eating in kitchen, percentage of windows screened; average number vegetables per garden; average number of children in families from which operator came, average number of births in operator's families where wife was 45 years old or more, average operator's opinion as to best size family, average age at marriage of operator wives; and percentage of operators having high school education, favoring college education, county agent work, and home demonstration work.

Classification of the average housing expenditures of 157 families is given as follows: fuel and light, soap and cleansers, a total for curtains, bedding, rugs, furniture and pictures, telephone service, repairs to house, domestic help, and service equipment.

Wherever families are measured in adult male equivalents, the basis is L. Emmet Holt's table of energy requirements.

Zimmerman, C.C., and Black, J.D.

1928 Factors affecting expenditures of farm family incomes in Minnesota Univ. of Minn. Agr. Exp. Sta. Bul. 246. (31 p.), illus.

The material presented in this bulletin was gathered in the fall of 1926 from 334 farm families in six Minnesota communities. The methods used were similar to those employed in the study listed just above. The report gives data on cash expenditures and living conditions, and "an analysis of some of the factors affecting the amounts of expenditures and hence the quality of living". The types of farming represented are indicated by the sources of cash receipts. Seventy two per cent of the cash received came from sales of live stock, 21 per cent from crop sales, and 7 per cent from all other sources. Statistical tables give for each community and for all communities surveyed; average size of farm, nativity of farm operators, land tenure, sources of cash receipts in detail, average cash expenditures and cash receipts, number and per cent in each community spending at least ten per cent more than receipts of current year; average amount spent for farms, (including taxes), for all interest payments on farms, and other investments, and for total family living, sub-divided as food, clothing, household, health, advancement and personal. The reasons given by 120 families for spending at least 10 per cent more than the receipts of the current year are given in a separate table.

The analysis of factors affecting the gross distribution of expenditures gives data on the expenditures of 154 families surveyed in 1925, combined with the data from the 334 families surveyed in 1926. The analysis used shows changes in the division of cash receipts as these receipts increase, beginning with the division between expenditures for all living, farm, investment, automobile, in averages per family and per adult equivalent (again using L. Emmet Holt's tables of energy requirements as a basis for determining adult equivalents.) Figures in regard to the distribution of total farm expenditures give the average farm expenditures classed as necessary to produce incomes, and average amounts classed as reinvested in the business. Distribution of the "net spendable income" gives the division between living, automobile, interest on loans and mortgages, reinvested in business, and all other investments.

The following material in regard to family living is presented by cash receipts groups; size of family in adult equivalents, average age of operator, number of families with mother 45 years old or older, average number of births for these mothers, average living children of these mothers; average cash expenditures per family for food, clothing, fuel, light, improvements and repairs to house, cleansers, musical instruments, telephones, domestic help, furniture and equipment, all household purposes, health, advancement, personal; relative increase per adult equivalent in expenditures for food, clothing, household, health, advancement and personal; average cost of food purchased per family, average assigned value of home produced food per family, and the relative increase in both purchased and home produced food per adult energy unit as cash receipts increase. All butter is included as a purchased item. Amounts were recorded of all goods produced at home, with the exception of fruits and vegetables. These were valued at average farm prices for the two year period. Fruits produced at home were omitted from the calculation. Vegetables were included by allowing \$4 per 1000 square feet of garden space.

A division of cash expenditures between average amounts spent for necessities and luxuries as cash receipts increase concludes the study of Minnesota families. Necessities are made to include "food, clothing, fuel, light, repairs to house, service equipment for home, cleansers and health expenditures." Included in luxuries are organizations, recreation, musical instruments, telephones, furniture, domestic help and personal expenditures.

A final table gives relative rates of increase of spendable incomes, and physiological and non-physiological expenditures, in changing from farm living to higher income groups for farmers and other economic groups, as shown by the study and by 35 other studies of family living.

Zimmerman, C.C.

1929 Incomes and expenditures of village and town families in Minnesota.
Minn. Univ. Agr. Expt. Sta. Bul. 253, 47 p.

The purpose of this study was to furnish a basis of comparison between the standards of living of Minnesota farm families previously studied and those among families in eleven towns and villages in the same state. Estimates of expenditures and incomes were obtained from 395 families, covering the year ending July, 1927. "Approximately half of the time (of the field workers) was spent among the poorer families of the town, and a quarter each among the medium class and the wealthier families." Average amount of income and expenditure, surplus or deficit, and sources of income, are presented per family and per adult male unit for each community and for each occupational group. Numbers of adult male units per family were computed on the basis of energy requirements as estimated by L. Emmett Holt. In the case of 198 families having deficits for the year, the causes assigned are presented.

Distribution of expenditures is given per family and per adult unit in averages for each of the eleven communities, and for each of the ten occupational groups, in regard to the following items, household (that is, a total for rent, light, fuel, operation and upkeep) food, clothing, health, other living, automobiles, investments, and total expense. The following material is given in terms of averages per family for each of eleven communities and for each of ten occupational groups: - average investments per family classified under ten different headings: expenditures for religion and charity, education reading, gifts, travel, tobacco, toilet and barber, shows and movies, other entertainment, organization dues, vacation, other miscellaneous living expenses, repairs to buildings, fuel, light, rent, music, telephone, domestic help, taxes, property insurance, operation and other household expense; and finally the circulation of daily and local papers. The following facts are presented by occupational groups only: - amounts of wealth owned; types of automobiles owned; amount of higher education among adult children; circulation of magazines, books and farm papers; amount of garden space, expenditures for medical services cost of births, size of lot, size of house and size of basement and air space, number of doors and windows and per cent screened, number of rooms and number in use, number of bed rooms and number of beds in use per 100 per sons, and type of heating and type of lighting.

Zimmerman, C.C.

1929 Incomes and Expenditures of Minnesota farm and city families.
1927-28. Minn. Univ. Agr. Expt. Sta. Bul. 255, 50 p., illus.

The investigation on which this report is based was undertaken under the auspices of the Agricultural Experiment Station of the University of Minnesota for the purpose of obtaining "some measure of the standard of living of farm and city families, the factors affecting these standards of living, and an understanding of the laws or principles of consumption in a farming-industrialized society." Material on income and expenditures were gathered from 226 farm families and 252 city families, for the year 1927-28. Data on the range of cash farm receipts is presented, showing for seven different groups, numbers of families in each group, average cash receipts and expenditures, and net spendable income. The average amounts invested in different ways, spent for automobiles and spent for family living are also shown in relation to the total cash receipts of the farms.

Figures on cash expenditures for the family living are classified as to amounts spent for food, clothing, health, buildings, alterations and repairs, fuel, light, domestic help, telephone, music, other household expense, formal education, travel and vacations, religion and charity, shows, entertainment, gifts, tobacco, toilet goods and barber, reading, organizations and other miscellaneous expenditures.

For the 252 urban families studied, number of families, average size of family, average income and average expense is shown by occupational and by income groups. The following facts are tabulated by income groups only, sources of family income, distribution of average family investments, distribution of average family expenditures classified as to expenditures for food, clothing, automobile, health, repairs, taxes, rent, insurance, light and fuel, operation, music (other than music lessons) telephone, domestic help, other household expense, education, vacation and travel, church and philanthropy, shows, entertainment, toilet goods and barber, gifts, tobacco, reading, organizations, other miscellaneous expense.

Expenditures per family and per adult unit for investment and for non-physiological purposes are presented by social classes, and net accumulations of property by income and cash receipts groups for both urban and rural families. Data on size of farm and urban homes giving the average number of rooms and of bedrooms per family and per 100 adult units, the percentage of total rooms that are bedrooms and the number using different methods of heating are presented in the same way. The report concludes with material relating average expenditures for power fuel and oil to the cash receipts of the farm families, as showing the "close relationship between the mechanization of agriculture and the size of the gross cash receipts". The number of adult male equivalents in the families studied was computed on the basis of the energy requirements of each family.

Section B. Studies of Costs and Standards of Living among
Wage-earners in the United States

Anthony, K.

1914. Mothers Who Must Earn. 223 p. New York

This study, under the auspices of the Russell Sage Foundation, was made on the West Side of New York City, during the summer of 1912, among mothers who had been obliged to continue or to resume regular employment outside the home after marriage. It is one of a series of studies aiming "to describe with sympathy and insight some of the real needs of a neglected quarter." The names of 307 wage-earning mothers were obtained through eighteen different social agencies; the schedule method was used with 237, while 133 cases were studied from information in the files of the social organizations help^{ing} them. Figures are presented for 370 families on nationality of parents, occupations of mothers, of fathers, both living and deceased, and of wage-earning sons and daughters, status of all living children, amount and sources of family income, and amount paid out for rent. For a limited number of cases, an intensive survey was made, covering wages, working hours, regularity of work, and its effect upon health and family life; status of the children of these families, the cost of their care during working hours, expenditures for insurance, occupations of the husbands; and the different kinds of pressure which had forced the mothers into the wage-earning class.

Beyer, W.C., Davis, R. P., and Thwing, M

1919. Workmen's Standard of Living in Philadelphia. 125 p.
New York.

Boston, League for Preventive Work

1917. Food supply in families of limited means. 24 p. Boston.

This study was made by six welfare agencies in Boston, members of the League, during one week of July, 1917, for the purpose of determining what percentage of income, in families of varying sizes, should be spent for food; how far income, nationality, and skill in purchasing enter into food habits and costs; and whether a family that is receiving outside aid maintains an adequate diet. The names of 200 families of whom 50 were then receiving aid, were taken at random from the files of social agencies; all of the families had children, and the average size, with boarders and lodgers included, was between six and seven persons; all 200 families filled out schedules showing food purchased during the week of the study. The points brought out in the report are as follows: classification of the families by nativity, residence, family composition and income levels; discussion of the diets as regards kind, adequacy and economy; relative expenditures for four main food groups, according to family income; percentage of income spent for food, by families of different income levels; number and percentage of families adequately fed, inadequately fed, and on the border line. The standards given in two publications of the Association for Improving the Conditions of the Poor (New York City), "Food for the Family", and "Food Allowances for Healthy Children" were used in judging the adequacy of the diets studied.

Bosworth, L. M.

1911. The Living Wage of Women workers. 90 p. Philadelphia. (Supplement to the Annals of the American Academy of Political and Social Science, May 1911.)

This study was prepared under the direction of the Department of Research, Women's Educational and Industrial Union, Boston, in an effort to gather data concerning the cost of living for working girls dependent upon their own resources. Tentatively begun in September 1906, the investigation was carried on chiefly from 1907 to 1909, and comprises information obtained from 450 women workers of Boston, representing the professions, clerical, sales, and factory work, waitresses and kitchen workers. Accounts were kept by thirty working women and material in regard to the rest was obtained from schedules. All returns were classified (1) by occupations and (2) in five wage groups; then under these two headings they were tabulated to show: average annual income and expenditure; average annual savings and debts; average annual expenditures for food, rent, clothing and laundry, health recreation, education.

The Buffalo Foundation

1926. What it cost fifty families to live for five years in Buffalo. 27 p.
Buffalo.

This study was undertaken to explain the administration of the mothers' pension system in Erie County, New York, the county in which Buffalo is situated. Fifty families of widowed mothers and their children, kept records of their family expenditures from the first of 1920 to the end of 1924. Size of family is given in terms of the number of children over and under 16 years of age. The expenditures for the family nearest to the average in size are given for each of the years 1920 to 1924 for shelter, food, fuel and light, clothing and miscellaneous. And the average expenditures of the family 1920-24 are compared with average for all fifty families, 1920-24. Monthly variations for expenses in 1924 are given for the nearest to average family. The expenses of this family for food and clothing are compared with the standardized food budget, and the maximum and minimum clothing budgets adopted by the Erie County Board of Child Welfare. Sources of the total income of this family are given for each of the five years in question. Percentage distribution of the average expenditures of the fifty families among the items listed above is given by income groups for the years 1920 and 1924. In 1924 the incomes of thirty-four of these families were not sufficient to meet expenses and the average deficit is given. The occupations of the thirty mothers supplementing their family incomes by work outside the home is given, and another table presents the allowances actually granted with the larger allowances permitted by law. Final tables present the sources of the total income of the fifty families 1920-24, and the distributions of their total expenditures for the same years.

Bureau of Applied Economics, Inc.

1919. Standards of Living: a compilation of budgetary studies. 49 p.
Washington.

(See under this title in Budget section.)

Byington, M. F.

1910. Homestead: the Households of a Mill Town. 292 p., illus. New York

(California Industrial Welfare Commission)

1915. First Biennial Report (1913/14): 93-98.

Chapin, R. C.

1909. The Standard of Living Among Workingmen's Families in New York City.
372 p. illus. New York.

This book includes three studies made at the request of the New York State Conference of Charities and Correction, in order to arrive at a dependable representation of the standard of living (1) absolutely, for a given time, place, and class of workers, and (2), relatively, in comparison with the standards of different times, places, and classes.

The first report, that by Professor Chapin, is a study of 391 families who lived in greater New York City in 1907. An attempt was made to have the families studied representative of every section of the city and of the most important nationalities; no dependent families were included; "attention was concentrated on families having an income of from \$500 to \$1000 a year, consisting of man, wife, and from two to four children under 16 years of age. Information was collected by means of a schedule form filled in by investigators, and is presented throughout the report by nationality groups and income levels. Data comprises occupation; sources of income; average number of persons and of energy units (Atwater scale) per family; and average expenditures, for rent, carfare, fuel and light, food, clothing, insurance, health, sundries, and all items.

Under the heading "Shelter" there is a discussion of rent as a factor in the budget, and as influenced by locality and nationality; character of accommodations; number of persons to a room; relation of lodgers to overcrowding; rent increase since 1905. Tables present average yearly rents; number and per cent of families paying specified monthly rents; number and character of rooms per family; number of families with more than 1.5 persons to a room; number and per cent of such over-crowded families reporting a surplus or deficit; comparison of per cent of total expenditure diverted to rent by families with and without lodgers.

Food is discussed as a factor in the budget: in regard to diet variations due to nationality; inadequacy of food expenditures; meals away from home; frequency of food purchase; dependence on baker; milk; ice and refrigeration; alcoholic drinks. Tables give the average yearly expenditure, and per cent which it is of total food expenditure, for the following groups: meat and fish; eggs, butter, milk, cheese; cereals; vegetables and fruit; sugar, tea, coffee, condiments; drinks at home; Average expenditure per man per day; and the number of families spending less than 22 cents per man per day, the amount needed to purchase a sufficient dieting as shown by Dr. Underhill's analysis of 100 dietaries. (See below) Detailed food expenditures per week are presented for 6 families (two from each of three different national stocks), three families having incomes between \$600 and \$700, and three having incomes of about \$900.

An estimated clothing budget and the cost of such a budget is given for a "normal" family--man, wife, girl of 10 and boys of 6 and 4 years of age "on the basis of the averages of expenditures and the details given in typical schedules." Average yearly clothing expenditures are given for men, women, boys and girls for all families and for families with and without gifts of clothing.

Expenditure for carfare is analyzed in reference to district of the city and rentals; number of families gathering free fuel is shown by nationality and income groups. In connection with outlay for health, the number of families depending on free medical aid and dentistry is indicated. As regards furniture, families are classified by a qualitative standard as well as by average expenditures; expenses for dues, taxes, contributions, recreation, newspapers, education and miscellaneous items are also briefly presented. Material on the number of families reporting the use of newspapers, books at home and of the public library is presented in detail.

A discussion of the general conditions of the families covers the following points: number and per cent of families reporting either surplus or deficit; number of families below standards regards food and clothing, food and shelter, shelter and clothing; number and per cent of families under-fed, under-clothed, and over-crowded; number of families reporting savings and insurance, borrowing and pawning.

The second study presents an analysis of the expenditures of 100 families in Buffalo, New York by John R. Howard, Jr. Data are given on nationality, occupations of father, average income and expenditure, source of income, type of housing, and over-crowding. Average expenditures for rent, fuel and light, furniture, insurance, food, clothing, health, carfare, taxes, dues and contributions, recreation and amusement, education and reading, and miscellaneous are given by nationality groups. Food expenditures are analyzed for adequacy by measuring the families according to the Atwater scale, and determining the number spending more or less than 22 cents per energy unit per day. (See below) The percentage for each nationality purchasing newspapers and percentage reporting use of library are also given by nationality groups.

The third study in this volume, "A Nutrition Investigation" by Frank P. Underhill, Sheffield Laboratory of Physiological Chemistry, Yale University, was undertaken in connection with the study of the standard of living of workingmen's families in New York City--because there had arisen "a query whether some indication might be obtained concerning the nutritive conditions of these classes of people as judged from the quantities and kinds of food materials bought." Data on food consumption were obtained for 100 families for the period of a week "from grocery and meat books of the family, from account books kept by the housewife, and finally from estimations by the family of the various staple articles bought." The families were chosen as representative of twelve different national groups living in New York City. The division into families well nourished and those poorly nourished was made on the basis of the protein, carbohydrate and energy furnished by the foods purchased. The amount and cost of food purchased were reduced to a per man per day basis by the use of the Atwater scale. Comparison between the amounts spent for food by well nourished and poorly nourished families indicates that in general when less than 22 cents per man per day is spent for food, the nourishment derived is insufficient, and when more than 22 cents per man per day is expended the family is well nourished. This statement was used as a basis for judging the adequacy of food expenditures by Chapin and Howard in the two studies summarized above.

Appendices comprise: preliminary reports of the Committee on Standards of Living; a copy of the schedule used; reports on cost of living in nine cities and towns outside of greater New York; a translation of one of Le Play's monographs; a bibliography of works on standards of living.

Clark, S. A. and Wyatt, E.

1911. Making Both Ends Meet. The income and outlay of New York working girls, New York. 270 p., illus.

The National Consumer's League, initiated this study because a previous study looking towards the establishment of a minimum wage, had shown that very little information was available on income and expenditures of working women. The investigation was carried on during a year and a half 1910 - 1911, among self-supporting girls and women living in New York City and employed as saleswomen, factory workers, and laundry workers. The schedule method was used, investigators collecting material on expenditures, as well as personal histories, by means of interviews with the workers in their homes, and by taking jobs in various establishments. The information is presented in the form of individual case records, and comprises figures on the income and outlay of saleswomen and factory workers, without any statistical summary; discussions of seasonal work; of monotony and fatigue in speeding; of the shirt-waist makers' and cloth makers' strikes; of working conditions in laundries; of scientific management as applied to women's work.

(Colorado Bureau of Labor Statistics)

1888. First Biennial Report (1887/88): 250-253, 271-287, 313-329.

(Colorado Bureau of Labor Statistics)

1904. Ninth Biennial Report (1903/04): 16-28.

(Connecticut Bureau of Labor Statistics)

1889. Fourth Annual Report (1888): 87-135.

(Connecticut Bureau of Labor Statistics)
1897. Thirteenth Annual Report: 17-81.

(Connecticut Department of Labor)
1920. Report (1919/20): 30-80 (Pub. Doc.--Special).

(Connecticut Department of Labor)
1924. Report on the Condition of Wage-earners in the State: 66-87
(Pub. Doc.--Special).

(Connecticut Bureau of Labor Statistics)
1926. Thirty-second Report: 29-59. (Pub. Doc. No. 33).

Cowles, M. L.
1929. Variations in Demand for Clothing at Different Income Levels:
Chicago Univ. (Unpublished Thesis).

Eaves, L. (Director)
1917. The Food of Working Women in Boston. 213 p.
Boston. (Women's ed. and indus. union, Dept. of research. Studies
in econ. relations of women, v. 10.)

This book includes a series of studies made by the Women's Educational and Industrial Union of Boston, in cooperation with the State Department of Health, as a means of assisting women employed in Boston and living away from their homes. The first section of the report presents the nature and scope of the problem. The second analyzes factors affecting the noon lunch of 702 women and girls interviewed in factories and stores. The third presents material on the arrangements for securing food made by women living away from home in Boston obtained from 261 schedules, mostly secured in personal interviews between Dec.

1915 and April 1916, and covering these points: nationality, occupation, wages, amounts spent during one week for rent, laundry, meals, and food eaten each day over a 7-day period.

Kinds of food consumed are tabulated in an attempt to show frequency of consumption of foods characterized by protein, carbohydrates and mineral substances. Another section of this study describes the general living conditions in organized homes for working women (subsidized, cooperative and commercial), the variety and cost of food furnished therein. Information was obtained from 22 such houses in metropolitan Boston, and from 17 others, located in eight different cities. A record of the diet for an entire week was obtained in eight organized houses in Boston and its vicinity, and analyzed as to the adequacy of the protein and calories consumed per person per day. A fourth section presents a survey of the food habits of 126 women treated at public dispensaries for diseases generally conceded to be related to diet, showing frequency of use, in one representative week, of specific foods characterized by protein, carbohydrate and minerals; and further discussion of the 126 patients as to nationality, economic status, occupation, weekly hours of work, and use of leisure time. Appendices give copies of the specimen schedules; a list of firms throughout the United States having employees' cafeterias; methods of calculating the variety of food; bibliography.

Gibbs, W. S.

1917. The Minimum Cost of Living. 93 p. New York.

This study includes systematic records of expenditures in a group of families under the care of the Association for Improving the Condition of the Poor, in New York City from 1914 to 1916. Their purpose was primarily to enable family groups to make the best possible use of the money at their disposal, and secondarily, to collect data that might aid in improving social conditions. The group studied consisted of widows who had dependent children and who were granted a definite monthly cash allowance; from this group 150 expense accounts (of which 75 were chosen as the basis of this report) were collected by trained field workers. The discussion covers the following points: A food budget providing a basic diet, according to the standards of W. O. Atwater, giving quantities and costs, for a family of two adults and three children with factors for adjusting this budget to the needs of families of different composition; records of quantities of food actually consumed by 75 families, during one year, for each of eight major groups of foods; annual budgets compared with actual expenditures for rent, food, fuel and light, clothing and sundries. Size of family is measured by number of adults of each sex and of children. Other sections discuss "minimum requirements" and the actual situation as regards housing, fuel and light, clothing, insurance and sundries.

Great Britain. Board of trade.

1911. Cost of living in American towns...533 p. London.

This inquiry was the fifth of a series undertaken by the Board of Trade of Great Britain into working class conditions of life in the more important industrial towns of various countries for the purpose of obtaining data comparable with those contained in the Report on the "Cost of Living of the Working Classes" in the United Kingdom. The investigation was begun in February 1909 and information was collected by the schedule method for 7,616 families of the 28 industrial towns in the East, South and Middle West on weekly income, and expenditures for food and rent. British consular and diplomatic officials stationed in the United States collected the information, with the cooperation of social service agencies, employers and city officials. Data are presented for each town on wage rates, hours of work, housing conditions, rents and retail prices for food. Figures on income are presented according to occupation and national origin for 7,616 families, and more detailed figures on the amount and sources of family income, expenditures for rent and food, and the amount and cost of different foods consumed are presented for 3,215 American-British families. Tables giving the amounts and costs of different kinds of foods consumed by families of different national origin and income appear in the appendix. Family size is measured in persons.

Houghteling, L.

(1927). The Income and Standard of Living of Unskilled Laborers in Chicago. 224 p. Chicago.

Undertaken for the purpose of determining whether a proposed revision of the Chicago Standard Budget for Dependent Families set a higher standard than could be maintained by the families of independent laborers, this study analyses schedules received from the families of 467 unskilled and semi-skilled workers in Chicago in 1924, and detailed records of food consumption for one month of the same year from 54 such families. Annual earnings of the chief wage-earner were checked against the payrolls of the companies furnishing the names of the men whose families were interviewed. Only families having at least one dependent child were included. The schedules were not complete in all respects, but a report is given on sources and amount of family income, housing, heating and lighting, savings and debts, ownership of certain comforts, and assistance received at any previous period from social agencies for 467 families, on expenditures for food by 216 families, and on amounts of different foods consumed, food expenditures, and nutritive content of diet for 54 families. For the purpose of studying food expenditures, size of family was measured in terms of equivalent adult males according to the expenditure scale of the Chicago Standard Budget. Food consumption and housing were compared with the conditions set by the Standard Budget. Case studies are given in the appendix for 27 families.

Hughes, G. S.

1925. Mothers in Industry. 265 p. New York.

This study, covering the period from November 1918 to August 1919, was conducted by the Seybert Institution of Philadelphia and the Department of Social Economy and Social Research at Bryn Mawr; its purpose was to determine "whether the employment of the mother is vital to industry" and "whether her wage-earning interferes with home life." In a preliminary survey information in regard to sources of income and composition of family were obtained from 10,838 households; 588 of the households investigated, represented families in which there was a wage-earning mother with one or more children under sixteen years of age; through social agencies and employers, there were obtained 140 more cases fulfilling these same requirements; schedules were obtained from these 720 women. The main points covered are: their reasons for working; their households; permanent and intermittent employment; marital status; nativity and ages of wage-earning mothers and their husbands; the interval between marriage and wage-earning; the family income; the length of the mother's working-day; the adjustment between the demands of home and of industry; the effect of the employment of mothers upon the birth-rate, upon infant mortality; health defects in the homes of wage-earning mothers.

Appendices give the schedule form filled out by wage-earning mothers, and bibliography.

(Illinois Bureau of Labor Statistics)

(1883). Second Biennial Report. (1881/82): 88-365

(Indiana Department of Statistics)

1892. Fourth Biennial Report (1891/92): 16-41, 339-352.

This report embodies a discussion of general living conditions based on statements from over 2000 wage-earners in iron industries of the state, arranged according to specified occupations, and given separately for 14 of the principal cities; the points covered are, number reporting for each occupation and locality; number married; number in family; number owning home, renting; average yearly rent; minimum, maximum and average daily wages; number of days employed; average yearly income. A yearly budget as offered by the Bureau is as follows: Annual earnings, \$312; cost of goods for 3 adults, 365 days, 3 meals a day at 5 cents a meal, \$164.25; fuel, \$24.00; health, \$15.00; clothing (\$8.25 Each), \$24.75; rent \$84.00.

In 1891, agents of the Bureau visited 71 families, comprising 312 persons, among wage earners of Indianapolis, Terre Haute, and Evansville, and obtained on

schedules the following data for each family: occupation; number in family; number paying board; amount paid as board in 1891; number of months employed in 1891, and earnings; total income of family (board money is included) for 1891; number owning homes; average yearly rent paid by renters; yearly cost of specified food commodities, fuel and light, clothing, furniture, books, tobacco, health, miscellaneous items; total yearly expenditure. The foregoing items are given for individual families, by cities; and for all families in each of the 3 cities, there is given the number of families, total number of persons, average yearly earnings, average yearly rent, total expenditure, average expenditure per family and per capita, and expenditure for each of the items of living costs enumerated above.

(Iowa Bureau of Labor Statistics):

1885. First Biennial Report (1884/85): 245-265; 287-346.

Questionnaires sent to teachers within the state resulted in 347 returns which are tabulated individually, and for males and females separately, to show age; native or foreign born; number of terms taught; whether having college education; earnings per month; total yearly earnings; cost of living for the year; average monthly cost of board; number wholly or partially dependent on teacher for support; number of teachers having insurance; number having accumulated savings; number in debt; number owning home. A recapitulation gives totals and averages.

A general discussion of cost of living presents average retail prices as follows: for each of 24 staple commodities; by counties, and for the state as a whole, for beef, mutton, veal, pork and salt meats, with increase or decrease as compared to former years; for 13 staple groceries in Iowa, Chicago, New York City and specified cities and countries abroad; for staple items of dry goods, boots and shoes, clothing, coal and wood; for monthly rentals, particular types of habitation, in specified counties and towns.

Further discussion of living costs in Iowa is based on 1183 responses to a questionnaire circulated among the wage-earners of the state; tabular presentation is by occupations and by counties. The table by occupations covers the following points: number of returns; average age; native or foreign-born; average daily, weekly, monthly wages; average yearly earnings; number of wage-earners aided by families; average earnings of families; average cost of living per year; number owning homes; number renting; average monthly rent and number of rooms rented; average number in family; percentage increase or decrease in cost of living; number of wage-earners having insurance; number having saved; number in debt. The arrangement by counties shows occupation; number reporting, average age; native or foreign born; average yearly earnings; number aided by families; average cost of living; average number in family; number renting; percentage increase or decrease in cost of living; maximum, minimum and average daily wages; number in debt.

(Iowa Bureau of Labor Statistics)

1887. Second Biennial Report (1886/87): 5-118, 165-195.

(Iowa Bureau of Labor Statistics)

1891. Third Biennial Report (1888/89): 5-64, 103-107, 125-185.

(Iowa Bureau of Labor Statistics)

1891. Fourth Biennial Report (1890/91): 271-273.

(Kansas Bureau of Labor and Industrial Statistics.)

1886. First Annual Report (1885): 52-55, 132-142, 204-232, 248-257.

Returns from 337 wage-earners are tabulated to show for each individual reporting, occupation; age; place of birth; present residence; number of hours employed daily; wages per day; total yearly earnings, days lost during year, from specified causes; yearly earnings of members of the family; yearly cost of living; number owning homes; number of rooms rented; monthly rent paid; number in family; number working for wages; number in school; increase or decrease (fact, not amount) in wages; in cost of living; number who saved in former years, in year past, never saved, ran in debt; number of families living in one house. A summary by occupations gives the following data: number reporting; average hours employed daily; average daily wages; average yearly earning of head of family; of other members; average family income; average total expenditure; average number in family; average number in school.

For 17 negro families migrant to Kansas from Mississippi, returns are tabulated to show for each individual family the occupation and age of the head of the family; his total earnings for the year ending June 30, 1885; number of days lost during the year, from specified causes; number in family; earnings of other members of the family; yearly cost of family living; number owning homes; for those renting, monthly rent and number of rooms occupied; there are also case records for 13 families.

Other information relating to cost of living is as follows: a table showing gross yearly earnings, deductions, and total family expenses for Kansas miners; limited data on average retail prices, one leading grocer in Topeka reporting prices for specified staple items of groceries; thirty-two specimen daily rations ranging from less than 11 cts. to over 45 cts. in cost, and furnishing nutrients equivalent to the standard of a laboring man at moderate work, are quoted from Prof. Atwater (amount as well as cost of each specific food is given).

(Kansas Bureau of Labor and Industrial Statistics)
1887. Second Annual Report. (1886): 125-373.

(Kansas Bureau of Labor and Industrial Statistics)
1888. Third Annual Report. (1887): 75-191.

(Kansas Bureau of Labor and Industrial Statistics)
1889. Fourth Annual Report. (1888): 169-265.

(Kansas Bureau of Labor and Industrial Statistics)
1890. Fifth Annual Report. (1889): 197-326.

(Kansas Bureau of Labor and Industry)
1896. Eleventh Annual Report. (1895): 96-153.

(Kansas Bureau of Labor and Industry)
1897. Twelfth Annual Report. (1896): 61-95.

(Kansas Bureau of Labor and Industrial Statistics)
1899. Fourteenth Annual Report. (1898): 96-165.

(Kansas Bureau of Labor and Industry)
1900. Fifteenth Annual Report. (1899): 1-301.

(Kansas Bureau of Labor and Industry)

1903. First Biennial Report. (1901/02): 5-121.

(Kansas Bureau of Labor and Industry)

1905. Second Biennial Report. (1903/04): 3-158, 179-337, 361-407.

(Kansas Bureau of Labor and Industry)

1907. Twenty-second Annual Report. (1906): 1-83.

(Kansas Bureau of Labor and Industry)

1908. Twenty-third Annual Report. (1907): 1-100.

Kennedy, J. C., and others

1914. Wages and Family Budgets in the Chicago Stockyards District, Chicago, 80 p., illus.

This study was made under the direction of the Board of the University of Chicago Settlement, and deals with conditions in the "Packingtown" district (the community about the Settlement) up to and including 1910. The purpose of the investigation was to ascertain how the standards of living among the people of the district were affected by the wage-scales in the packing plants, and further, what factors determined wage-scales. Information was obtained from payrolls, time-keepers and officials; from a personal canvass of 350 workers in the various departments of the packing industry; and from 134 typical stockyard families, who kept daily records of expenditures which were checked every week by paid agents, at certain periods between April, 1909 and April 1910. Over 75 per cent of the accounts were kept for periods of six months or more. The points covered in the report comprise a discussion of the racial composition of the district; broken time, and probable average weekly earnings; actual yearly earnings of male and female workers; comparative wage-scales, 1896, 1903, and 1910; movement of wages in relation to cost of living; comparison of conditions in packing districts of Chicago, with conditions among workers in the ready-made clothing establishments of Chicago, and with conditions among unskilled laborers in Kansas City and in Omaha; analysis of the family expenditures into average expenditure for rent, food, clothing and miscellaneous; a recommended minimum budget in detail, for a family of five persons; an estimate of additional amounts necessary for families of six and seven numbers.

Kenngott, G. F.

1912. *The Record of a City: A social Survey of Lowell, Massachusetts*
256, illus., New York.

This book is an expansion of a doctor's dissertation offered at Harvard University and constitutes an exhaustive study of the social and industrial conditions existing in the city of Lowell about 1909. An historic sketch at the beginning of the volume furnishes background for the subsequent chapters, which deal with the following points: population, housing, health conditions, industrial conditions, living standards, social institutions, and means of recreation. Under population is discussed the number of nationalities represented, their relative strength, their characteristics, their prevalence in various mills. Housing covers such points as overcrowding, sanitation in tenements, rentals, extent to which corporations still house their employes. Health conditions are presented by means of figures showing deaths by age groups, nationality, diseases, by 10-year periods 1850-1909; death rate from specific causes, by nationality and age groups; birth rate by nationality. Industrial conditions are developed under the following heads: survey of the movement for a reduction of working-hours; predominant weekly rates; brief sketch of labor troubles; "absenteeism" in mill ownership. The discussion of living standards is based on data from 237 schedules, gathered by reliable persons, and from among sober, industrious, self-maintaining wage-earners, to represent an ordinary week in 1909. The investigators used the same schedule as that utilized by the British Board of Trade in its 1909 investigation in other cities of the United States, obtaining information on the occupation of the head of the family, number in the family, country of birth of husband and wife, number of children, amount and source of average weekly income, house rent, number of rooms occupied, and kinds, amount and cost of food purchased in one week. Two hundred and twenty-eight schedules from families of different nationalities were analyzed for food-calorie value per man per day (Atwater scale), and for proportion of wages expended for shelter; all schedules were summarized for average family size and average income; 37 schedules selected at random are published in detail; comparisons were made with family budgets of Lowell wage-earners, collected by the Massachusetts Bureau of Labor, in 1875. The discussion of socializing influences dealt with the following factors: churches, hospitals; day nurseries and Homes; social and community organizations; Board of Trade; banking institutions; newspapers and other publications; schools; outdoor recreations, such as games, car rides to resorts, parks and playgrounds, summer camps maintained by the Y. M. C. A. and the Y. W. C. A.; indoor recreations, such as library, theatres, moving pictures, dances, church clubs.

Leeds, J. D.

1917. *The Household Budget.* 246 p. Philadelphia.
(See under this title in Budget section)

Little, E. L., and Colton, W. J. H.

1920. Budgets of Families and Individuals of Kensington, Philadelphia.
273 p.

Lynd, R. S. & H. M.

1929. Middletown, 534 p. New York.

This study of "the interwoven trends that are the life of a small American city" is divided into six sections: getting a living, making a home, training the young, using leisure, engaging in religious practices, and engaging in community activities. The authors lived in the city they were studying for two years. The entire book is in a broad sense, a study of the "standards of living" prevailing in the city studied in 1890 and 1924, and two chapters in the section "Making a home" may be said to be devoted entirely to that subject, as it is most narrowly defined.

The section on making a home is based partly on local and federal statistics, partly on material from the local press in both periods, and partly on schedules collected from 124 working class families, and 40 business class families.

Data on houses occupied cover for both periods, material of houses, size, porches (number and kind), prevalence of running water, kinds of toilets and sewage disposal, kinds of furnishings in 1924 at three different economic levels, money value of houses, rents, and methods of financing home building.

The chapter on "Food, clothing and housework" includes discussion of changes in food eaten, social importance of food, household production of food versus factory production; changes in kinds of garments worn, social importance of clothing, cost of clothing; organization of housework, time spent in housework, use of paid help, and of labor saving devices.

All tables are given in the appendix. They present material on the distance employees in three representative plants live from place of work; for 100 working class families in the year ending October, 1924, earned income, surplus or deficit, and expenditures for life insurance, rent, investment in house, furniture, church and Sunday school, lodges, labor unions, other clubs, newspapers and periodicals, books (not school books), music lessons, sheet music and victrola and pianola records, concerts and lectures, automobile, vacation, other recreation, separately for each family, with the median and quartile ranges; "minimum" cost of living for a family of five in 1924, based on the "minimum quantity budget of the Bureau of Labor Statistics," priced in Middletown; cost of living index for a working class family of five in 1924, (1891 = 100), "The method of calculating the index follows that of the cost of living index of the U. S. Bureau of Labor Statistics except that every effort was made to make the weights by which the prices were multiplied correspond to the amounts consumed by a Middletown family of five in 1891;" housing mobility of business class and working class families, 1920 -24, and 1893-96; and number in family of 40 business class and 124 working class families interviewed.

(Maine Bureau of Industrial and Labor Statistics)

1888. First Annual Report. (1887): 61-78, 89-96.

(Maine Bureau of Industrial and Labor Statistics)

1890. Third Annual Report. (1889): 29-41, 69-71, 96-99.

(Maryland Bureau of Industrial Statistics and Information)

1886. First Biennial Report. (1884/85): 80-86, 187-201.

(Maryland Bureau of Statistics and Information)

1903. Eleventh Annual Report: 2-21.

(Maryland Bureau of Statistics and Information)

(1905) Thirteenth Annual Report. (1904): 113-121.

(Maryland Bureau of Statistics and Information)

1907. Fifteenth Annual Report. (1906): 133-151.

(Massachusetts Bureau of Statistics of Labor)

1871. Second Annual Report. (1870/71): 423-452.

(Massachusetts Bureau of Labor Statistics)

1872. Third Annual Report. (1871/72): 251-292, 468-529.

(Massachusetts Bureau of Statistics of Labor)
1873. Fourth Annual Report. (1872/73): 109-128.

(Massachusetts Bureau of Labor Statistics)
1874. Fifth Annual Report. (1873): 21-27, 161-200, 258-263.

(Massachusetts Bureau of Statistics of Labor)
1875. Sixth Annual Report. (1874/75): 191-450.

(Massachusetts Bureau of Statistics of Labor)
1876. Seventh Annual Report. (Pub. Doc. No. 31) 363 p. Boston.

(Massachusetts Bureau of Statistics of Labor)
1881. Twelfth Annual Report. (1880): 416-441.

(Massachusetts Bureau of Statistics of Labor)
1884. Fifteenth Annual Report. (1883): 435-469.

(Massachusetts Bureau of Statistics of Labor)
1902. Thirty-second Annual Report. (1901/02): 239-314.

(Massachusetts Bureau of Statistics of Labor)
1905. Thirty-fifth Annual Report. (1904/05): 79-130.

(Massachusetts Commission on the Cost of Living)

1910. Report (House Doc. No. 1750): 571-605.

Meeker, R., and Kittredge, D. D.

1920. Analysis of some effects of increased cost of living on family budgets.
U. S. Dept. Labor, Bur. Labor Statist., Mo. Labor Rev. 11: 1-10.

(Michigan Bureau of Labor and Industrial Statistics)

1890. Seventh Annual Report. (1889): 3-305.

(Michigan Bureau of Labor and Industrial Statistics)

1891. Eighth Annual Report. (1890). 451 p. Lansing.

(Michigan Bureau of Labor and Industrial Statistics)

1892. Ninth Annual Report. (1891): 1-183.

(Minnesota Bureau of Labor, Industries and Commerce)

1910. Twelfth Biennial Report. (1909/10): 325-536.

(Missouri Bureau of Statistics)

1923. Forty-Second & Forty-Third Annual Report. (1921/22): 829-929.

(Missouri Bureau of Labor Statistics)

1924. Forty-fourth Annual Report. (1923): 54-56.

(Montana Bureau of Agriculture, Labor and Industry)
1893. First Annual Report: 11-151.

(Montana Bureau of Agriculture, Labor and Industry)
1895. Second Annual Report. (1894): 31-62.

This report presents an analysis of data on general working and living conditions, furnished by 3079 wage-earners of the state, for the year ending June 30, 1894; among the points covered are the following: occupation; average age at which they began wage-earning; per cent of males, females, married, single, native born, foreign born; average earnings for year; average monthly cost per person of board and lodging, rent; per cent owning homes, average value of homes and average number of rooms; per cent renting, average monthly rent and average number of rooms; per cent of those married having children; average number of children per married person; per cent at school of children reported; per cent of all reporting carrying accident insurance; average amount of such accident insurance; average amount of life insurance.

Summaries presented for each of the principal labor-employing counties cover occupation; average yearly earnings; average cost, to unmarried persons, of board and lodging; for married persons, average rent paid, and number of rooms occupied in either rented or owned homes.

Average board and lodging rates, hotels and boarding houses, are given for the year ending June 1894, by proprietors in specified counties, wholesale and retail prices, bases on statements of merchants and dealers in specified counties, are given for 16 items of food, for the year ending June 1894.

Cost of living data from 35 families for the same year comprises the following information: county; occupation; for husband and wife separately, nativity (native or foreign born), years in the United States, years in Montana; family composition; number of persons paying board; family income yearly, from specified sources; yearly expenditure for specified groups of food; rent; fire and light; clothing; dry goods; furniture; books, religion, charity, etc; newspapers, magazines and stationery; tobacco and liquor; miscellaneous items; total income; total expenditure; amount of surplus or deficit.

More, L. S.

1907. Wage-Earners' Budgets. 270 p. New York.

This study was undertaken to determine "standard of living among the different races and occupations in the neighborhood of Greenwich House" a social settlement on the lower West Side, in New York City; material on the living standards and ex-

penditures of 200 families of the wage-earning class, was collected during the period from November 1903 to September 1905, by means of schedules, and of itemized household accounts kept by fifty families for lengths of time varying from one week to one year. The information presented comprises a summary for each of the 200 family schedules, giving the occupation of the man of the house, the nationality of both man and wife, the number of persons in the family, the yearly income, the yearly expenditures (classified under Food, Rent, Clothing, Light and Fuel, Insurance, Sundries); average expenditures per family under these six main items, for families classified by income levels, by nationality and by family size; average expenditures classed under "Sundries", distributed under the following headings recreation, union, gifts or loans, drink, church, furniture, papers, carfares, medical attendance, spending money, education, domestic service, funerals, and miscellaneous. The report includes itemized accounts secured from twelve typical families, giving both quantities and costs for food and clothing.

Mossell, S. T.

1921. The Standard of Living Among one hundred Negro Migrant Families in Philadelphia. Ann. Amer. Acad. Polit. and Social Sci. 93 (137): 173-213.

This study, offered as a doctor's dissertation at the University of Pennsylvania, was conducted from October 2, 1919 to December 31, 1919, in the 29th ward of Philadelphia, among 100 negro families who had come to take industrial jobs in that city from the agricultural districts of Mississippi, Alabama, Florida, Georgia, South Carolina. The purpose of the investigation was to determine (1) what constituted a fair standard of living for the negro migrant families in Philadelphia, (2) how many families could obtain an income sufficient for a fair standard, and expend that income wisely, (3) what was the effect of these migrant families upon racial conditions in the city. The investigator made personal visits to the families, filling out schedules which were later checked or supplements from store-book records covering periods of from three to six months. The information comprises a copy of the schedule used; a general discussion of Expenditures for the items that make up a family budget; a list of food items purchased by three families, and for comparison, a list of food items suggested as a fair standard of living, by the Bureau of Municipal Research, Philadelphia. The material presented in tabular form is as follows: analysis of incomes, classified by number of persons in family and by income groups, showing total income, and amount and percentage of this total contributed by different members of the family; analysis of expenditures, classified by number of persons and by income groups, showing amount and percentage of income spent for the following--food per adult male (Bureau of Labor Statistics scale) and per family, clothing per adult male and per family, rent, fuel and light, staples, alcohol, amusement, carfare, church, doctor, furniture, insurance, miscellaneous, tobacco, sundries, surplus, deficit; a suggested budget itemized as follows--food, clothing, rent, fuel and light, amusement, church, insurance, furniture,

medical aid, carfare, tobacco, miscellaneous. Adequacy of diet was estimated by comparing expenditures per adult male unit with the cost per adult male unit of the food budget recommended by the Philadelphia Bureau of Municipal Research, and the percentage of families estimated as being under fed is presented for each income group.

(Nebraska Bureau of Labor and Industrial Statistics)
1890. Second Biennial Report. (1889/90): 9-54.

This report presents data on living conditions of wage-earners, compiled from about 700 schedules collected by agents, and from 22 family accounts. The schedule material is grouped under 25 occupations, and shows: number of cases; nominal and actual earnings; value in necessities; amount of variation; possible savings for year; family size; number of rooms occupied; monthly rental; yearly clothing expenditures for men, women, children, and for family as a whole; quantities and cost, monthly, for about 30 items of food; average expenditures for all food; yearly cost and quantities purchased of specified items of house furnishings; monthly expenditures for each of the items oil and fuel (quantities also given), music, reading matter, health, amusements, contributions, carfare, tobacco and liquors, life insurance, lodge dues; total average monthly expenditures.

Under the heading "Savings" is shown the number of families reporting; the per cent saving; average possible savings; average actual savings; average amount invested; average amount deposited; maximum single savings (one man) in year of study, in 5-year period.

Expense accounts kept by 22 families are tabulated individually to show: occupation; number in family; residence; nationality; number of days worked in year; total yearly earnings; total expenditure, amount expended for each of the items rent, clothing, food, house furnishings, and combined amount expended for all other items; savings during year, during former years and still possessed.

(Nebraska Bureau of Labor and Industrial Statistics)
1909. Eleventh Biennial Report. (1907/08): 193-193.

(Nebraska Bureau of Labor & Industrial Statistics)
1910. Twelfth Biennial Report: (1909/10): 140-142.

(Nebraska, Bureau of Labor and Industrial Statistics)
1912. Thirteenth Biennial Report. (1911/12): 70-73.

This report of the Nebraska Bureau of Labor and Industries dealing with the condition of wage-earners and with general industrial conditions within the state, presents material which was gathered in an effort to establish the cost of living of wage-earners in the industrial centers, Omaha, South Omaha, Lincoln, Beatrice, Hastings, Fremont and Nebraska City. In each locality several families, each consisting of five members (the average sized family as shown by Census reports) kept careful records of every item of family consumption; these records, tabulated and analyzed, are presented in the following form: average wages and hours of work, by occupation and sex; average cost of living (on monthly basis for a family of five persons, representing the wage-earners of the minimum class in our industrial centers, and dealt with separately for the seven localities), classified as house rent, fuel and ice, light, food and provisions, clothing, doctor's bills and medicine, street car fare, amusements, laundry, incidentals, including union dues, insurance, etc.; minimum cost of living for the individual, classified as room rent, board, clothing, doctor's bills and medicine, amusements, laundry, incidentals.

(New Hampshire Bureau of Labor)
1893. First Annual Report: 73-215.

(New Hampshire Bureau of Labor)
1896. First Biennial Report. (1894/95): 7-317.

(New Jersey Bureau of Statistics of Labor and Industries)
1878. First Annual Report: 3-59.

(New Jersey Bureau of Statistics of Labor and Industries)
1879. Second Annual Report: 41-97.

(New Jersey Bureau of Statistics of Labor and Industries)
1330. Third Annual Report: 1-69, 243-336.

Replies to a questionnaire (a copy of which is published) sent to wage-earners in the state amounted to almost 1000, and are tabulated individually by occupational groups, to show nativity of wage-earner; marital status; earnings of self; of family; total income; yearly expenses incurred for each of the items board, rent, fuel, clothing, groceries, meats, vegetables, sundries; total yearly expenditure; total yearly income; surplus or deficit; total number reporting, and average for each query. Summarized by occupations, the returns are tabulated to show number reporting, aggregate and average earnings; aggregate and average expenditure for each of the items of family living listed above.

There is also a discussion of what should constitute the workman's diet.

On the basis of consular reports made to the State Department, comparison is made between wages for specified occupations, and prices for specified commodities, in New York City, in Chicago, and in selected countries abroad.

(New Jersey Bureau of Statistics of Labor and Industries)
1333. Sixth Annual Report: 1-29.

(New Jersey Bureau of Labor and Industries)
1335. Seventh Annual Report. (1334): 1-65.

(New Jersey Bureau of Statistics of Labor and Industries)
1335. Eighth Annual Report: 3-33, 139-228.

(New Jersey Bureau of Statistics of Labor and Industries)
1336. Ninth Annual Report: 1-177.

(New Jersey Bureau of Statistics of Labor and Industries)
1894. Sixteenth Annual Report. (1893): 79-141.

New York (City) Bureau of Standards.

1915. Report on the Cost of Living for an unskilled laborer's family in New York City. 57 p. (New York)

The Bureau of Standards of New York City was aided by the Bureau of Municipal Research, in an attempt to determine a proper wage for unskilled laborers in city employ. The report summarizes data on family income and expenditures obtained by letters and interviews, from twenty members of the New York Street Cleaning force under the following headings: salary, other income, total income, total expenditure, rent, light and heat, food, carfare, clothing, insurance, amusements, house furnishings, and medical attention. The budget prepared as a result of studying these expenditure figures, is presented along with some other budgets in both quantity and cost figures.

Bibliography on cost of living of workman's families in New York City is given in the appendix.

(New York (State) Bureau of Statistics)
1893. Tenth Annual Report. (1892): 293-335.

(New York (State) Factory Investigating Commission)
1915. Fourth Report of the Factory Investigating Commission.
v. 4, p. 1235-2263.

This study is the result of an investigation undertaken to determine the advisability of fixing a minimum wage that should maintain a worker at a simple decency-efficiency standard; it was conducted during 1914, and represents data from 1937 self-supporting women of the class most to be affected by minimum wage legislation--800 were workers in department stores and 531 were workers in candy, paper-box, and shirt factories in New York City, and 403 were store workers, 198 factory workers, elsewhere in the state. The information, collected by means of a schedule filled in by an investigator, covers the following points: nativity of the 1937 women; nativity of fathers of 1467 native-born women; 1937 women classified by age groups; ages at which they left school; conjugal con-

dition; domicile (whether living at home, with relatives, with friends, or independently); family and individual earnings; distribution of expenditures. These figures on expenditures, given separately for store and factory workers, for New York City and up-state, and tabulated according to specified weekly earnings, show average weekly expenditure for board, lodging and lunches (separately for those living at home and for those living independently); for contributions to the family; clothing; laundry; carfare; savings; dues and insurance; miscellaneous expenses.

For the 500 store workers of greater New York, the following cost of living data is presented: weekly contributions to the family of 533 workers living at home; weekly cost of board, lodgings, lunches to 140 workers living with friends or relatives; weekly cost of board, lodgings, lunches to 125 workers living independently; weekly cost of lunches to all 300 women; weekly provision for laundry of 300 women; annual clothing expenditures of 500 women; (clothing lists, quantity and cost, from five of the women, and a projected quantity budget); living conditions (a discussion illustrated by diagrams and photographs of eight lodgings); weekly carfares, annual savings, monthly insurance premiums and dues in social and religious organizations, weekly spending money, of all 500 women. Practically all of the foregoing is classified according to specified weekly earnings of the women.

A brief section dealing with probable living expenses of an unmarried man gives an estimated budget comprising the following items: board and room, lunches, clothing (quantity and cost), laundry, insurance, carfare, recreation and amusements, incidentals.

A supplementary investigation carried on during July and August, 1914 among families with incomes of from \$12-\$20 a week, and whose names were procured from the lists of the Hudson Guild and the Labor Temple, provided a working basis for recommendation in regard to living costs of normal families (father, mother, three unemployed children). Food prices, average and relative, are given for about 30 staple foods in each of the five cities, New York, Buffalo, Albany, Syracuse, and Elmira; two daily and two weekly dietaries are given, designed to meet the requirements advanced by both Atwater and Underhill, specifying the quantities of individual foods, and the prices, as of August 1, 1914, in each of the five cities named above; for clothing, standard quantity budgets have been prepared, and prices applied, and projected yearly (quantity and cost) clothing budgets are offered for a man, a woman, boys of 13, 10 and 4 years, and girls of the same ages; housing is discussed, and a statement made as to probable outlays for carfare, insurance, health, furnishings, education, recreation and amusements, and miscellaneous needs. All of the above items are then summarized into an itemized budget for the normal family living in New York City, in Buffalo.

Appendices are: Living on \$6 a week (way in which different items of the budget solved by various individuals); How the working girl of New York lives; replies by social workers to a letter concerning the cost of living as their experiences showed it; copy of schedule used in collecting family data tables of expenditures of New York factory workers, classified according to specified weekly earnings, and showing weekly contributions to family treasury, weekly outlay for board, lodgings, lunches, monthly outlay for dues, etc., annual clothing costs, annual savings, weekly spending money; weekly menus and yearly clothing lists (quantities only) of ten families; case descriptions, Troy, Buffalo, New York.

Noble, C. V.

1924. The Cost of Living in a Small Factory Town. N. Y. Agr. Col. (Cornell) Agr. Expt. Sta. Bul. 431, (60) p.

Ogburn, W. F.

1919. Analysis of the Standard of Living in the District of Columbia in 1916. Amer. Statis. Assoc. Quart. Pubs. 16 (n.s. 126): 374-389.

This study is intended to present a method of analysis for use in determining how expenditure for different items varies with size of income and size of family. For his purpose the author has selected 200 cases from over 2000 family accounts collected by the United States Department of Labor, Bureau of Labor Statistics, in 1916, in the District of Columbia; in the original study the families were both white and negro, with the head of the family earning not less than 75 per cent of the total family income and the latter not exceeding \$2000 yearly; in the 200 cases which constitute this study, all the families are white, composed of man and wife, with no lodgers, boarders or adults other than their children, living in rented houses and supplying full detail on expenditures classified as "sundry"; about 90 occupations are represented.

Relationships are worked out between annual family income in dollars, and size of family in adult male units (based on relative food requirements, Bureau of Labor Statistics Scale), and each of the "variables", i.e., the items of expenditure varying with income and with family size. These variables are as follows: cost of food per adult male unit per day; total clothing costs in multiples of the amount spent for husband's clothing; deficit or surplus; and expenditure for each of the items, food, rent, fuel and light, clothing, husband's clothing, wife's clothing, children's clothing, insurance, furniture and furnishings, contributions for religion, education, amusement, liquor and tobacco, sickness. The relationships are expressed (1) in terms of correlation coefficients and (2) in terms of regression equations, eliminating the effect of small samples, and showing the "ideal" value of any variable for a given income or family size. Attention is called to the correlation ratio as a check upon the accuracy of the assumption of straight-line regression.

Since these coefficients of correlation and regression equations measure the fluctuations of one variable in reference to one constant, another method, that of partial correlation and partial regression equations, is employed to eliminate the effect of a third factor which may influence variations. The use of the standard or probable errors as a test of the significance of correlations is also suggested.

A test is made of the suitability of the food requirement scale as a measure for other items of consumption by comparing the percentage relation of clothing expenditures for husbands, wives and children with the calorie requirements of men, women, and children; adult male unit figures obtained by dividing total family clothing expenditure by husband's clothing expenditure, and adult male

units calculated on basis of food requirements scale, give closely approximating results.

The value of these methods consists in the possibility (1) of comparing studies where family size and income are different, (2) of foretelling what families of any size and income (excluding extremes) will expend on a variety of items, (3) of indicating the effect, in adjustment and curtailment, of a static income and a growing family.

Ogburn, W. F.

1919. A Study of Food Costs in Various Cities. U. S. Dept. Labor, Bur. Labor Statist. Mo. Labor Rev., 9 (2): 1 - 25 303-327. illus.

"This article presents the conclusions reached by analyzing the food budgets gathered by the agents of the United States Bureau of Labor Statistics in the Cost-of-living survey of 1918-19." The schedules filled out in that survey included detailed estimates of the food consumption of the families of 12,092 wage-earners in 92 cities. This report begins by giving the average food expenditure in each city by families having incomes between \$1200 and \$1500. The figures are presented in terms of expenditure per family and per adult male unit (measuring the families according to the scale of the Bureau of Labor Statistics). Statistics on average annual expenditures for food per family are presented for forty-three localities for families of the same size (3.35 adult male units) and with the same total annual expenditure, \$1300. The cost of adequate dietaries in eleven localities for families with varying expenditures was estimated by assuming that "the dietaries which yield 3500 calories per man per day are usually abundant enough and varied enough to be fairly well balanced and fairly adequate in the amounts of the necessary constituents." A final section of the article presents a chemical analysis of the food in average dietaries in eleven localities, (giving the protein, fat, carbohydrates, calcium, iron, phosphorus--and ash in grams per man per day) and a tabulation of the amounts of different foods consumed--per man per day in each of these localities.

Ogburn, W. F.

1919. A Study of Rents in Various Cities. U. S. Dept. Labor, Bur. Labor Statist. Mo. Labor Rev., 9 (3) 9-30 617-638 illus.

This article presents the conclusions reached by analyzing data on house rents paid by the families of American wage-earners gathered by the agents of the United States Bureau of Labor Statistics in the cost-of-living survey of 1918-19.

The schedules filled out in that survey contained figures on rents paid by approximately 100 families in each of the 92 communities visited. The report begins by giving average expenditures for rent for the families paying rent in each community and having incomes from \$1200 to \$1500 a year, not including those where payments for light and fuel are combined with rent. For 45 communities rents were computed for families of constant size with an income of \$1300. Variations in the percentage of the family income devoted to rent in relation to variations in size of family and size of income are given for ten different communities.

Variations in rent with the type of housing provided is given by comparing the rents of apartments and houses of different size with, and without bath. Overcrowding is measured by studying different localities according to the number of persons per room in families of the same size having annual expenditures of \$1300, the number of persons per room in families of varying size but with the same income, and the number and per cent of all families reporting specified number of rooms per person.

(Ohio Bureau of Labor Statistics)
1876. First Annual Report. (1877): 302-310.

(Ohio Bureau of Labor Statistics)
1879. Second Annual Report. (1878): 231-253.

(Ohio Bureau of Labor Statistics)
1880. Third Annual Report. (1879): 203-242.

(Ohio Bureau of Labor Statistics)
1881. Fourth Annual Report. (1880): 1213-1230, 1317-1339.

(Ohio Bureau of Labor Statistics)
1882. Fifth Annual Report. (1881): 7-75.

(Ohio Bureau of Labor Statistics)

1883. Sixth Annual Report. (1882): 72-101, 187-226.

(Ohio Bureau of Labor Statistics)

1884. Seventh Annual Report. (1883): 14-212.

(Ohio Bureau of Labor Statistics)

1885. Eighth Annual Report. (1884): 262-275, 299-314.

(Ohio Bureau of Labor Statistics)

1886. Ninth Annual Report. (1885): 16-17, 83-139, 317-355.

(Ohio Bureau of Labor Statistics)

1887. Tenth Annual Report. (1886): 187-239.

(Ohio Industrial Commission. Department of Investigation and Statistics)

1915. Cost of living of working women in Ohio. Rpt. 14, 255 p. Columbus.

Volunteer social workers, (university students of sociology, etc.) supervised by the Department's staff, visited wage-earning women and assisted them in keeping accounts of one month's expenditures, and in making estimates of a year's expenditures. A preliminary schedule filled out by the visitor formed the basis for selecting wage-earners over 18, living away from home, earning not more than \$624 yearly, and either native American or having "the so called American standard of living." The schedules, account forms, and instructions to volunteer workers are reprinted and a list of cooperating organizations and individuals; 164 complete budgets were reported; 208 individual returns are tabulated to show occupation, mode of living (whether boarding and lodging or light house-keeping), number of weeks account was kept, average weekly earnings, average weekly income from other sources, total weekly expenditures, and the following subdivisions of expenditures: food and shelter, clothing, laundry, carfare, health, recreation and amusements, fruit, candy, soda, etc; education; church

and charity; stamps and stationery; association dues; insurance; gifts; and incidentals. Returns are grouped by cities for Cincinnati, Cleveland, Columbus, Dayton, and Toledo, cities of 50,000 to 100,000, and cities under 50,000; 42 detailed typical accounts are presented.

Supplementary surveys of rooming house rates were made in Cleveland and Columbus.

Summary tables are given comparing average expenditures by income levels, by mode of living, distribution of occupation, and average amount expended for each expenditure subdivision. The average for clothing is subdivided to show the average amount spent for foot wear and repair, for hosiery; under-clothing and night dresses; outer clothing (dresses and coats); belts and neckwear; gloves; hats; dressmaking, cleaning and repair of clothing; miscellaneous clothing.

The appendices include a bibliography of recent investigations of cost of living compiled by Charles W. Reeder in 1915. It includes state reports from 8 states.

Expenditures for each major item are summarized by income levels. Quantities of individual clothing are given in the individual accounts printed. A general summary of 164 annual budgets gives, by the same city grouping enumerated above, average earnings, income, and total subdivided expenditures, percentage figures to correspond; the same data by mode of living instead of cities; the same by occupational groups (factory, office, saleswomen, all other). The same data is presented for clothing alone, subdivided into the 9 clothing subdivisions mentioned earlier, by cities and by occupation groups.

Apparently most of the information was collected in the fall of 1914. It was obtained for the purpose of determining minimum wage requirements.

(Oklahoma Department of Labor)
1908. First Annual Report: 39-113.

(Oklahoma Department of Labor)
1909. Second Annual Report. (1908/09): 41-91.

(Oklahoma Department of Labor)
1910. Third Annual report. (1909/10): 67-138.

This report presents the results of an investigation of 225 families for the year 1909, representing about 7,000 persons in the State. The data were gathered from the principal industrial centers of the State, and principally for persons showing annual earning below \$1,000. Questionnaires were mailed out; over 400 reports were returned, and the 225 selected for tabulation chosen from these because stated most exactly. Building trades, miscellaneous trades, school teachers, and railway employees are represented. Information presented includes the following: age, marital status, days employed during 1909, hours per day, number of dependents, number of days unemployed due to sickness, inability to obtain work, and other causes; wage increase or decrease over previous year (qualitative statement) home ownership, value of home, amount of encumbrance on it, rental, number of rooms in house, labor organization membership, rate of wages, total wages during 1909, income from other sources, cost of food, fuel, clothing, sickness, rent, net savings (exclusive of permanent investment and miscellaneous expenses), life and accident insurance, sundries and incidentals; 47 reports were from the building trades, 38 from miscellaneous trades, 106 from school teachers, 32 from railway employees, totaling 223 reports. School teachers' reports were classified by type of certificate held; amount of money spent for attending normals and institutes is tabulated; insurance is lumped with sundries. Summary tables are given, by occupation, of average number of dependents, annual income, annual cost of food, and of daily expenditure for food per person, and average annual cost of living (food, fuel, clothing, sickness and rent).

Packard, E.

1915. A Study of Living Conditions of Self-Supporting Women in New York City. 96 p., illus.

This study was made by the Metropolitan Board of the Young Women's Christian Association among working women of New York City, in March, April and May of 1915. It was desired to determine the actual needs of working girls before deciding upon the plans for a projected boarding home; an investigator lived for a short period at fifteen separate organized "Homes", gaining information through her experiences and through informal interviews with her fellow residents, as also through 140 formal schedules which she obtained. Of working girls not in organized homes, some information was obtained for 842, of whom 535 were personally interviewed and the information which they gave tabulated on schedules. The report presents itemized expenditures per month or year for selected organized homes; nationality and occupation of inmates of such homes; nationality and occupation of those girls living in boarding houses, private families, or apartments, weekly wages and board and room outlay for 423 girls, living away from home, classified by amount of weekly wage; the amount spent for room only is given for 360 girls, classified in the same way, and for 342

girls classified by type of lodging, separating those living in furnished rooms, those living with private families, and those living in apartments; a discussion of rooming house conditions, of conditions in organized homes, recommendation for the socialized apartment house. Appended are specimens of the schedules used, and a map of the city showing the location of organized homes studied.

Peixotto, J. B.

1929. How Workers Spend a Living Wage: Calif. Univ. Pubs. Econ. 5 (3): 161-245.

(Pennsylvania Department of Internal Affairs. Bureau of Industrial Statistics)
1877. Fourth Annual Report. (1875/76): 814-830.

(Pennsylvania Department of Internal Affairs. Bureau of Industrial Statistics)
1850. Seventh annual report. (1875/79): 320-352.

Actual earnings of 498 men employed in 85 different occupations were obtained by mailing questionnaires to these men. Data are presented for each man for the year 1879 on occupation, county, weekly wages, number of weeks worked during year, years in present employ, weekly wage in 1872, composition of family, hours, value of tools used, age, earnings of minors and total earnings of family; expenditures for rent, fuel, groceries, clothing, education, recreation, and total surplus or deficit, and statement as to whether earnings have covered expenses for past five years, are included.

(Pennsylvania Department of Internal Affairs. Bureau of Industrial Statistics)
1852. Ninth Annual Report. (1880/81): 158-174.

(Pennsylvania Department of Internal Affairs. Bureau of Industrial Statistics)
1883. Tenth Annual Report. (1881/82): 68-83.

(Pennsylvania Department of Internal Affairs, Bureau of Industrial Statistics)
1888. Annual report. (1887): 2-15.

(Rhode Island Bureau of Industrial Statistics)
1888. (First) Annual Report. (1887): 47-57.

(Rhode Island Bureau of Industrial Statistics)
1889. Second Annual Report. (1888): 3-55.

(Rhode Island Bureau of Industrial Statistics)
1893. Sixth Annual Report. (1892): 26-150.

Richards, E. H.
1901. The Cost of Food: a study in dietaries. 161 p. New York.

Sherman, H. C. and Gillett, L. H.
1917. The Adequacy and Economy of some city dietaries.
32 p., illus. New York (New York Assoc. for improving the condition
of the poor. Pub. No. 121.)

This study was undertaken because the authors believed that suggestions "as to how to improve upon present food habits should be based on a knowledge of the adequacy of present family dietaries and the relation existing between nutritive value and different types of food." The authors secured one hundred and two family dietaries, each an exact record of the amount and cost of food eaten by a family for a period of seven days during 1914-15. Two thirds of the records were collected by an investigator who visited the families, weighed the

food and supervised very closely the keeping of the accounts. The other third were obtained partly from interested and intelligent housewives who kept their records without supervision and partly from students of Home Economics, who kept records for their families as part of a class project. Ten families had had such close supervision from a dietitian connected with the New York Association for Improving the Condition of the Poor that their food consumption was not regarded as typical and their records were not included in the general averages. All figures are averages in terms of consumption and cost "per man per day", but the scale used for measuring family size in terms of man units is not given. The following facts are presented in regard to the diets at different cost levels, and for the average diet; energy value and content of protein, phosphorus, calcium and iron; percentage distribution of food expenditures among different groups of foods; ounces of various foods consumed per man per day; money expenditures for various foods per man per day.

The 92 dietaries are then arranged in relation to the percentage of expenditure first, for meat, then for grain products, then for milk, then for vegetables and fruit, and finally as to the amount of iron in the diet. Average costs as well as average nutritional content are presented in each arrangement. A method is suggested for computing the "combined" food value of various foods and money costs are compared with this combined food value.

Sydenstricker, E., and King, W. I.

1921. The Measurement of the Relative Economic Status of Families.
Amer. Statis. Assoc. Quart. Pubs. 17 (n.s. 135): 842-857.

United States Coal Commission.

1925. Bituminous Mine Workers and Their Homes.
68th Cong., 2nd Sess., Sen. Doc. No. 195, Pt. 3.

United States Coal Commission.

1925. Living Conditions in the Anthracite Region.
68th Cong., 2nd. Sess., Sen. Doc. No. 195, Pt. 2.

(United States Commissioner of Labor)

1839. Fourth Annual Report. (1838). 631 p. Washington, (D. C.)

(United States Commissioner of Labor)

1891-1892. Sixth Annual Report, (1890) and Seventh Annual Report, (1891).
Washington, (D. C.)

On June 13, 1888, the United States Congress passed an act to establish a Department of Labor. Section 7 of that act is as follows:

That the Commissioner of Labor, in accordance with the general design and duties referred to in section one of this act, is specially charged to ascertain, at as early a date as possible, and whenever industrial changes shall make it essential, the cost of producing articles, at the time dutiable in the United States, in leading countries where such articles are produced, by fully specified units of production, and under a classification showing the different elements of cost, or approximate cost, of such articles of production, including the wages paid in such industries per day, week, month, or year, or by the piece, and hours employed per day; and the profits of the manufacturers and producers of such articles; and the comparative cost of living, and the kind of living.

The reports of 1891 and 1892 carry out these instructions with reference to the iron, steel, coal and cognate industries, and the cotton, woolen and glass industries. Initiated in 1888 and completed in February, 1891, they give, as a factor in cost of production in the industries specified, the hours and rates of pay of the men employed; and information on the cost of living and expenditures of these men and their families. Data on earnings, in the iron, steel and related industries were obtained from the payrolls of 99 mills (71 in the United States and 28 in Europe), and were valid for 3491 workers; for the textiles and glass industries, information was had from 125 establishments and covered 56473 workers. Cost of living material, comprehending the same persons as were included in the time and earnings data, was obtained by schedule forms filled out by special agents from 3260 families (770 of them living in Europe), comprising 16,561 persons, in the iron steel industries and from 5234 families (965 of them living in Europe) comprising 27,577 persons in the cotton, woolen and glass industries; classified by states or foreign countries, and by nativity of the head of the family, these returns comprise for all industries the following points: family description (age, sex, occupational status); sources of income; yearly expenditure for food (pounds and cost of about 20 staple articles of diet); expenditures for rent (number of rooms), fuel and lighting (kind), clothing (husband and wife separate, children grouped), furniture and utensils, taxes, insurance, organizations, religion, charity, books and newspapers, amusements and vacations, intoxicating liquors, tobacco, sickness and death, unclassified; contrasted income and expenditure, showing surplus or deficit; descriptive remarks on individual families.

These entries are published separately for each family, so that it is possible to trace any one family through the various tables, which are also summarized by states, all nationalities combined; by nativity of head of family, all states combined; by nativity and state or country; by industries; summaries give number of families included in each classification and average family size, as calculated by the Bureau of Labor Statistics scale (here published).

Separate analysis is made of the income and expenditure recorded on schedules received from 3265 normal families; that is, families that include no boarders or lodgers, that rent their homes, and whose schedules recorded expenditures for fuel, light, clothing and food, that have husband, wife and not more than five children, none of whom are over 14 years of age. These analyses, comprising 1246 families in the iron-steel group and 2019 in the textile-glass group, are offered for each industry separately and for combinations of industries, and gives the following data, classified by states and by number of children in family: number of families; average income per family; average total expenditure per family; average expenditure per family for each of the items, rent, food, fuel, lighting, clothing, sundries. Recapitulations are by number of children, by states and foreign countries, and by industries. Percentage of expenditure spent by normal families for rent, fuel, lighting, clothing, food, and sundries is classified by both states and number in family, and tabulated under income levels of \$100 difference; summaries are given by states alone and by number in family alone. Food consumption data is presented (1) for the individual families, giving locality; husband's nativity, industry and occupation; number and ages of children; size of family in "units of consumption"; yearly quantities used per "100 units of consumption", (an adult male=100) for potatoes, sugar, butter, lard, meat, eggs, flour, coffee, tea; (2) for industries separate and combined, showing number of families; number of children; number of families using each kind of food; quantity consumed and average cost of food per 100 units of consumption; decreasing per capita cost with increasing size of family.

The 1890 report contains the material relating to the iron, steel and cognate industries and to the cost of livelihood of workers therein, while the 1891 report presents the information concerning the woolen, cotton, and glass workers, and also, data on the consumption of food in normal families in the iron-steel industries, in which 1613 "normal families" were used, instead of the 1246 of the next year's publication, revised from the 1890 report.

The comprehensive nature of the report is proven by the fact that the iron-steel returns cover 10 of the United States, and Belgium, France, Germany and Great Britain; the textile-glass returns come from 23 states and Belgium, France, Germany, Great Britain and Switzerland; food consumption figures represents data from "normal" families in 24 states and all of the foreign countries already enumerated.

(United States Commissioner of Labor)

1897. Ninth Special Report. 409 p. Washington, (D. C.)

(United States Commissioner of Labor)
1904. Eighteenth Annual Report. (1903): 365 p. Washington, (D. C.)

This study, conducted from the latter part of 1900 until early in 1902, proposed to give a comprehensive survey of the cost of living for working people in all localities of the United States and without reference to specific industries, thus bringing to date and supplementing the data gathered and published in 1890-91. The information for this report was obtained through personal inquiry made by special agents, who filled out a schedule form that covered the period of one year; these returns represent 33 states, including the District of Columbia, and cover a total of 25,440 workmen's families (124,100 persons), having a yearly income of not over \$1200, and living in the chief industrial centers of the United States. General divisions are as follows: (1) tables dealing with family and household composition of all 25440 families; (2) tables dealing with occupation and earnings, and non-employment, in 24402 families; (3) income and expenditure data for 25440 families; (4) items of expenditure for 2567 families who were able to give such detail; (5) income and expenditure data for 11156 normal families, i. e., having no boarders or lodgers; (6) consumption of food in 1043 normal families; (7) retail prices of food. All tabular material is published separately for the 33 states, and summarized for the country as a whole. "Family size" is measured by the Bureau of Labor Statistics Scale (given in this report).

Tables on family and household composition give the nativity of the heads of families; their condition as regards employment (employed, idle or invalided); the number of families in which the wives are gainfully employed; the age groups and sex of children, and whether at school, at home, or employed; the number and per cent of families having dependents (boarders, lodgers, servants).

Tables on occupation and earnings give the number of heads of families in each specified industry; the number of heads of families in each \$100 group of earnings, classified by industries and occupations; percentages for the foregoing, in those occupations embracing at least 100 persons; heads of families idle for a specified number of weeks, classified by nativity of head of family, and by cause of idleness; number and per cent of heads of families idle for specified causes, classified by industries; per cent of heads of families idle for specified causes, classified by occupations (embracing 100 or more persons).

Tables on income and expenditure are as follows: sources of income, with number and percentage of families under each source, classified by nativity of head of family; expenditures for fuel, lighting, clothing, food, and "other", separately for owners and renters, classified by nativity of head of family; number of families, average size, and averages for income, total expenditure, expenditures for rent, mortgage, fuel, lighting, clothing, food, "other", surplus, and deficit, classified by nativity of head of family; housing conditions of 23,447 families having no boarders or lodgers other than children or relatives, showing number of families, average size, number of rooms per family and per individual for all families and for owners and renters separately, and cost of rent per family, per individual and per room, for renters, classified according to nativity of head of family.

Tables on detail of expenditure in 2567 families show number and per cent of families having an expenditure for specified articles of food, and the average amount of such expenditure; number and per cent of families reporting an expenditure, and average amount of such expenditure for rent, mortgage, fuel, light, clothing for husband, wife and for children, taxes, insurance, organizations, religion, charity, furniture and utensils, books and newspapers, amusements and vacations, intoxicating liquors, tobacco, sickness and death, "other"; number of families having a surplus, and the manner of investing it, and number having a deficit, and the manner of meeting it; all these tables are classified according to the nativity of the head of the family.

Tables on income and expenditure for 11,156 "normal" families give number of families; income per family and per individual, and expenditure per family and per individual, for food, rent, fuel, lighting, clothing, and sundries, classified by nativity of head of family and number of children in family; the foregoing data, classified by nativity of head of family and income levels; income per family, per cent of income expended, and expenditure, amount and per cent, for rent, fuel, lighting, food, clothing and sundries, classified by geographical regions, by general nativity (native or foreign-born) of head of family, and by number of children in family; expenditure per family, amount and per cent, for the foregoing items, classified by number of children and income levels; income and expenditure per individual for the foregoing items, classified by nativity of head of family and number of children.

Tables on the consumption of food in 1,043 "normal" families give quantities and costs (average per 100 "units of consumption") of staple articles of food consumed; average cost of total food consumed (per 100 "units of consumption") for families of varying sizes; classified by nativity of head of family.

The section on retail prices is based on 5,302 schedules obtained from 314 retail merchants in the period from 1890 to 1902, and 5,293 schedules obtained from 311 retail merchants, in 1903; these returns represent prices in the same localities as appear in the cost of living data. The information comprised is as follows: relative retail prices of each of a group of 30 specified foods, for the years 1890-1903 inclusive, the average for 1890-1899 being used as a base, given for five chief regions and for the United States as a whole, with the number of schedules upon which the indexes are based; relative retail prices, 1890-1903 inclusive, for all foods together, given for the five chief geographical regions; per cent of increase or decrease in 1903 as compared with each year of the period 1890-1902, for each of the 30 specified foods; average quantities consumed, average cost per family, and relative importance of 20 selected items of food (as derived from the returns made by the 2,567 families used in the cost of living data) in 1901, classified according to geographical regions; comparison of average prices per specified unit of measure for 20 selected foods, as computed from 2,567 family budgets and from retail price schedules; for each of these 20 foods, the amounts purchasable for \$1.00, for each of the years 1890-1903 inclusive; average food costs per family, for each year 1890-1903 inclusive, arranged by geographical divisions; general tables showing, by state and locality, the average yearly prices of each food 1890-1903 inclusive, and the average price of each for the period 1890-1899.

Foods for which retail prices are given: apples, evaporated; beans, dry; beef, roasts, stew; beef, steaks; beef, salt; bread, wheat; butter; cheese; chickens; coffee; cornmeal; eggs; fish, fresh; fish, salt; flour, wheat; lard; milk, fresh; molasses; mutton and lamb; pork, fresh; pork, salt; bacon; pork, salt, dry or pickled; pork, salt, ham; potatoes, Irish; prunes; rice; sugar; tea; veal; vinegar.

An index number of retail food prices, continuing the series begun in this investigation has been published regularly in the Monthly Labor Review ever since this work appeared. In 1921 the number of foods included was increased to 43.

States represented in the study are: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, District of Columbia, Virginia, West Virginia, Georgia, Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, Kansas, Kentucky, Tennessee, Alabama, Louisiana, Texas, Colorado, California, Washington.

(United States Department of Commerce and Labor. Bureau of Labor)
1906. Conditions of living among the poor of the District of Columbia.
Bul. 64: 593-695.

(United States Department of Labor. Bureau of Labor Statistics)
1917-1918. Cost of Living in the District of Columbia. U. S. Dept. Labor, Bur. Labor Statis. Mo. Labor Rev. 5(4): 639-655; (5): 335-346; (6): 1073-1090; 6(1): 1-12; (2): 253-264; (3): 493-505; (4): 769-770; 6(3): 112.

(United States Department of Labor. Bureau of Labor Statistics)
1918. Cost of Living in Shipbuilding Centers. U. S. Dept. Labor, Bur. Labor Statis. Mo. Labor Rev. 6(3): 604; (4): 151-152; (6): 99-104; 7(2): 132-135; (3): 115-122; (4): 112-120; (6): 115-146.

(United States Department of Labor. Bureau of Labor Statistics)

1922. Cost of Living in Coal Mining Towns. U. S. Dept. Labor, Bur. Labor Statist. Mo. Labor Rev. 14(4): 617-621.

This investigation was undertaken in order to provide facts about the standard of living of workers in an industry where work is intermittent and living conditions difficult. The study was carried on by the schedule method in 12 coal mining centers located in Illinois, Indiana, Ohio, Pennsylvania, and West Virginia. In each locality data were secured from about 20 families where the chief wage-earner was employed in or about the coal mines, and from five families where the husband was employed in some other industry. From all communities combined the schedules from miners' families number 246 and from non-miners' families 53. For each town there is given for all the families surveyed, and then for the miners' families separately, average size of family in persons, and in adult male equivalents (Bureau of Labor scale), average income per family, average yearly expenditures for food, clothing, rent, fuel and light, furniture and furnishings, miscellaneous items, and all items, number families having either surplus or deficit and the amount, and the number having neither surplus or deficit. For the coal miners' families only information is given by towns on sources of income.

(United States Department of Labor. Bureau of Labor Statistics)

1924. Cost of Living in the United States. U. S. Dept. Labor, Bur. Labor Statist. Jul. 357, 466 p. Washington, (D. C.)

(United States Department of Labor. Bureau of Labor Statistics)

1929. Cost of Living of Federal Employees in Five Cities. U. S. Dept. Labor, Bur. Labor Statist. Mo. Labor Rev. 29 (2): 41-61; (3): 243-259; (4): 241-254; (5): 1-10.

In order to assist the Federal Personnel Classification Board to determine adequacy of government salaries, the Bureau of Labor Statistics collected the expenditures of the families of 506 married employees of the Federal Government in Baltimore, Boston, New York, Chicago and New Orleans for the year ending June 30, 1925. The work done by these employees ranged from common labor to the lower grades of technical work. No postal employees nor any employees receiving more than \$2,500 a year were included. The following facts are given for the families surveyed in each city, classified according to the government salary of husband: composition of family; sources and amount of total family income; average expenses per family for food, clothing of husband, wife, children

and other dependents, housing, heating and lighting, furniture and furnishings, other items, and all items; relation of average income to average expenses; rents paid, and payments on owned homes. Average quantity and cost of individual foods consumed per family and per adult male equivalent are given for all the families surveyed in each city and for all families by income groups. Average expenditures are given for the following items classified first, by income groups for all families and then by cities; health expenses, life, accident and health insurance, retirement deduction, personal property insurance, personal property and poll taxes, church and Sunday school, labor organizations, lodges, clubs and societies, street car fare, etc., automobile payments, automobile supplies and repairs, motor-cycle supplies and repairs, telephone, laundry, barber and beauty shop, tobacco, papers, magazines and books, radio, motion pictures and other amusements, vacation, household incidentals, music dancing and elocution lessons, school tuition and tutors fees, servant hire, gifts outside the home, charity, garage rent, death expense, traveling expense, moving expense, and other items. A final section of the report gives numbers of families in each income group in each city buying on the installment plan; the average deficit for those families in each city buying on the installment plan, and for those not buying on the installment plan, and the kind and average cost of the articles paid for by this method.

(United States Railroad Wage Commission).

1913. Report of the Railroad Wage Commission to the Director General of railroads. April 30, 1913. 150 p., illus. Washington.

This study was undertaken as a general and comprehensive investigation of the pay of railroad employes, the relation to pay in other industries, the relations of pay-levels in different classes of railroad work, and the relation of pay to cost of living. Appendix 2 of the report deals directly with cost of living, giving relative price changes from January 1916 to January 1917 and figures on the expenditures of 265 families collected by newspaper editors in selected cities. The expenditure material is tabulated to show, by income groups and by regional divisions, for 1915 and 1917 the number of adults and minors in the families; the aggregate earnings; the expenditures for rent, clothing, fuel and light, food, furniture and house-furnishings, all other purposes; total expenditure; surplus or deficit; and to show percentage distribution, by income levels and by regions, for 1915 and 1917, of expenditures for the same items. There is also data on the earnings of employes of Class 1, Railroads and of the Pullman Company for 1915, 1916 and 1917.

(Washington (State) Bureau of Labor Statistics)
 1908. Sixth Biennial Report. (1907/08): 83-91, 157-171.

(Washington (State) Bureau of Labor Statistics)
 1910. Seventh Biennial Report. (1909/10): 37-44, 165-178.

(Wisconsin Bureau of Labor)
 1896. Seventh Biennial Report. (1895/96): 177-316.

Worcester, W. F. and D. W.

1911. Family Budgets of Typical Cotton-mill Workers. Report on Condition of Woman and Child Wage-earners in the United States, vol. 16 (61st Cong., 2nd Sess., Sen Doc. 645)

Young, E.

1870. The cost of labor and subsistence in the United States, for the year 1869 as compared with previous years. U. S. Treasury Dept., Bur. Statis. 75 p. Washington, (D. C.).

The statistics presented in this report, "relating to Factory Labor, were prepared from returns made by the proprietors of the various establishments while those relating to Mechanical, Farm and other Labor, and the Cost of Provisions, Groceries, etc. were gathered and tabulated mainly from information obtained and furnished by the Assistant Assessor in the various Collection Districts, all in response to inquiries addressed to them."

Two third of this report is devoted to wage rates in different occupations and different states for 1860, 1867, and 1869, and about one third to unit costs of food of different kinds, of yard goods, and men's heavy shoes, to the rent charged for four room tenements and six room tenements, for board for men and for women in different states in 1867 and 1869. Comparative figures are given

in detail on unit prices of building materials, wage rates in the building trades, and prices of building lots suitable for the dwellings of factory workmen, 1861 and 1869. These prices are not summarized but an additional table gives average weekly expenditures of workmen's families in some of the manufacturing towns of the United States in 1869. Itemized expenditures are given for fourteen different kinds of foods, soap and starch, fuel, oil or other light, other articles, spirits, beer and tobacco, house rent, taxes, benevolent objects, and "total per week, (clothing excepted)" for families of different size and composition.

The author's interest in cost of living is shown by the fact that he prints a table showing (in terms of dollars) the average income and expenditures of three classes of workmen's families in nine different Belgian towns. He does not give the source of these Belgian figures.

Section C. Studies of Costs and Standards of Living among
Professional Workers in the United States

Anonymous

1920 Adjusting salaries of bank employees to meet changes in the cost of living. Fed. Reserve Bul. 6: 1293-1295

Bruere, M.E., and R.W.

1922 Increasing Home Efficiency (295) p. New York

Henderson, Y., and Davie, M.R. (ed.)

1928 Incomes and living costs of a university faculty. 170 p. New Haven

This study was initiated by a voluntary committee of the Yale Chapter, American Association of University Professors, during the academic year, 1927-28, in order to determine to what extent professors are forced to supplement their salaries from the university, and to establish, as far as possible, some reasonable economic and social standard to which academic salaries must conform. Questionnaires were sent to members of the teaching staff of Yale University, at New Haven, and returns were had from 272, comprising over 60% of the faculty body, and representing majorities among the instructors (63%), the assistant professors (65%), the associate professors (73%) and the full professors (56%).

From the information thus obtained was made up a description of the mode of living, for both single and married professors, at specified economic levels. The various factors in the standard of living are developed separately for the four professorial ranks named above; tabular presentation is accompanied by brief discussion. Data comprises family composition and number of dependents wholly or partially supported; distribution by salary groups; salary (minimum, maximum, modal and median) by median age of full-time faculty; actual salaries in 1913, 1918, 1919, 1920, 1927, and salaries that would be equivalent in purchasing power to that of 1913; number having supplementary income, median amount and sources of such income; total income, minimum, maximum and median, for those single and for those married, without children, with one child, with two. Figures on expenditures, also, separate for each rank, show number reporting, and for those single, married, childless or with children; under shelter is shown the median sale value of the house, or median annual rent; domestic service, amount of service and median amount paid; automobiles, most common year of manufacture, median price, class of car, number bought second-hand, average annual mileage; median amounts spent on travel, vacation, membership in professional or social organizations; median age and median income of those reporting savings in some form, and median amounts saved as insurance, as savings or investments, and combined.

Discussion of general conditions covers the following points: number and per cent of the faculty reporting surplus, or deficit, and range of deficit; residence and neighborhood discussed qualitatively; comparison of faculty incomes with those of non-faculty residents of same neighborhood, and with men in business, army, navy, law, medicine, dentistry, ministry, engineering; comparisons of assessed values of residences of faculty and of non-faculty members of graduate clubs; type of salary scale, individual bargaining, length of tenure, effect of size of faculty on increases in salary scale, and consequent relation between university system and economic phases. The actual data upon which these comparisons etc. are based, are to be found in the appendices, where there is given also a copy of the questionnaire used in the study, and a presentation of returns summed up into 54 economic social groups; each group contains cases where conditions are closely similar, and presents individual family expenditures for such items as rent, service, children's education; clubs, travel, books, health, insurance, savings, and investment.

Leeds, J.B.

1917 The Household Budget. 246 p. Philadelphia

(Massachusetts Bureau of Statistics of Labor)

1874 Fifth Annual Report (1873): 21-27, 161-200, 258-263

(See under this title in Wage-earner section.)

Meeker, R.

1926 A study of costs and standards of living of Minneapolis teachers in relation to their salaries. Central Committee of Teachers Associations. 39 p. Minneapolis.

National Education Association

1913 Report of the Committee on Teachers' Salaries and Cost of Living.
328 p. Ann Arbor.

This report was undertaken for the purpose of determining "whether the increase in teachers' wages, has kept pace with the increase in the wages of workers, the increase in the cost of living, and the increased demands upon teachers." It consists of three parts, one giving general material on the increased cost of living; one on the economic and social condition of teachers in Cincinnati, Hamilton, Denver, Atlanta and New Haven; and one on salary schedules, tenure and pensions. The second section presents figures obtained from a questionnaire circulated among teachers in the five cities named above. These figures give information on the age, sex, conjugal condition, number of dependents, home ownership, salaries, savings and property ownership of the teachers. Information is also presented on life insurance carried by teachers; the length of their working day, their educational and professional training, and their expenditures. Detailed figures on expenditures are given for 58 families where the fathers are teachers, separating those who own their own homes from those who do not. The financial situation of these families is tabulated under the following headings in terms of averages for five different income groups: total income; total expenditure; expenditures for rent, (for group not home owners) clothing for husband, wife, children, laundry, life insurance, dues to teachers clubs, religion, charity, educational books and periodicals; amusement and vacation, care of health, educational fees, contributions to school activities, street car to and from school, other transportation costs in attending institutes, etc., and contribution to annuity or retiring funds.

Figures on expenditures of 70 unmarried women teachers not living with parents or other relatives were also obtained by questionnaire. They are presented by income groups, and give averages for the following items; total income; total expenditure, and expenditures for board and room rent, clothing; laundry; and to meet professional demands. This part of the report ends with comments taken from the questionnaires on teachers' costs and standards of living.

(Oklahoma Department of Labor)

1910 Third Annual Report (1909/10): 67-138

(See under this title in Wage-earner section.)

Peixotto, J.P.

1927 Getting and Spending at the Professional Standard of Living. 307.
New York.

This study was carried on at the University of California during six weeks in December 1922 and January 1923, in order to determine (1) the cost of living in the academic world, and (2) the possibility of maintaining a professional standard upon the salary scale then in vogue. Cooperating in the study were 96 faculty families, settled permanently in Berkeley, and representative, in professorial rank, of the whole faculty group; these families were visited by investigators who filled out schedules, usually on the basis of account books, or bills and checks, kept by the persons studied. The data obtained is offered largely in tabular form, but is also discussed in the text; tables include presentation of family composition; professional rank; income and salary ranges; sources of supplementary income; percentage distribution among 30 main items of total expenditures for the 96 families; mean and median amounts, and percentage distribution for 17 items of expenditure (food, shelter, clothing, house operation, and miscellaneous items as enumerated below), for all 96 families, and for 28 families each numbering four persons; mean amounts and percentage distribution of expenditures, divided into food, clothing, shelter, operating, and miscellaneous expenditures, grouped by expenditure levels of \$1000, for the 96 families as a whole; mean and median amounts and percentages spent for shelter, classified according to total amount spent for shelter; number of rooms, by size of family and by income level; mean and median amounts, and percentage which each is of total expenditure; spent for house operation, for light, heat and fuel, ice, telephone and telegraph, service, garbage removal, personal cleaning supplies, house cleaning supplies, house laundry and supplies, furniture and furnishings; stationery and postage, and unclassified; median amounts, and percentages of total spent for all miscellaneous buying and of total expenditure, for the following items: investments, auto, recreation, health, dependents, gifts, educational, professional, incidental, associations, church, charity, tobacco.

Comparisons are developed as follows: food expenditure is correlated with total expenditure and with size of household; clothing expenditure for husbands and wives are compared; a table is offered showing the percentage distribution of \$4800 yearly income (for a family of four persons) among the items food, clothing, shelter, house operation, miscellaneous, investments and savings, based on figures derived from the study in hand, and from E.F. Richards' "Cost of Living" (New York, 1900), Metropolitan Life Insurance Co., Anglo-California Trust Co. (Pittsburgh), Bank of Italy (San Francisco), and the Pacific Oil Co., Amalgamated Oil Co., and Affiliated Co. Expense histories, or budgets, are given for 12 families, showing total income, subdivided according to sources, and total expenditure, subdivided into food, clothing (individual), housing, house operation, and the "miscellaneous" items enumerated above. The appendix gives the form of the schedule used, and the following tables; number and per cent of families reporting under each item of "miscellaneous expenditure", classified by total amount spent on miscellaneous items, and classified by amount of total expenditure; mean and median per cent of total expenditure spent for each item of miscellaneous expenditure, classified by amount of total expenditure, mean and median percentage of total amount of miscellaneous

expenditure spent for each item; number and per cent of families reporting under each item of "miscellaneous expenditure", classified by total amount spent on miscellaneous items, and classified by amount of total expenditure; mean and median per cent of total expenditure spent for each item of miscellaneous expenditure, classified by amount of total expenditure; mean and median percentage of total amount of miscellaneous expenditure spent for each item of miscellaneous expenditure, classified by amount of total expenditure; and classified by total amount spent on miscellaneous items; mean and median amounts for each item of miscellaneous expenditure, classified according to amount of total expenditure.

Pittsburgh Teachers' Association, Inc.

1927 Survey of the salaries of teachers in the public schools of Pittsburgh in relation to the cost of living. 98 p. Pittsburgh.

This study was made by Dr. Marion McKay and Dr. Colston T. Farne, of the Department of Economics, University of Pittsburgh, during the period February to June, 1927, to obtain data bearing upon adequate remuneration for teachers in Pittsburgh Public Schools; and other information was obtained from the National Education Association, and from previously made surveys which bore a direct or related connection to the study in hand. The report covers the following points: Increases, absolute and percentage, in teachers' salaries, compared with increase in cost of living, 1900-1921; frequency distribution of teachers according to training, according to years of experience, and according to salary levels (this last for 1915-1927 inclusive); extra earnings; maximum salaries for men and women teachers in fifteen selected cities, 1904-1927; comparison of salaries and working days per year of Pittsburgh teachers with rates of pay and working days per year of certain skilled artisans, comparison of changes in pay of teachers, school officials, municipal employees, and unskilled workers, in Pittsburgh; tables of rents paid and rental value of homes owned by teachers classified by number of dependents, grade taught, and types of quarters occupied; average food costs also classified by number of dependents and grade taught; yearly expenditures (in detail) for seventy-one elementary school and twenty-one High School teachers in Cincinnati; estimated yearly budget (in detail) for a married man, wife and two children, as worked out by the Board of Education, of Chicago; minimum yearly budget, and a second, more liberal budget (divided into Food, Rent, Clothing and Miscellaneous) for an unmarried woman teacher in Minneapolis; a yearly budget, quantity, quality and cost for a "standard" family of five persons, in Minneapolis.

PART II

STUDIES OF LIVING COSTS BASED ON QUANTITY BUDGETS.

- California. Special committee on cost of living in California for selected family groups.
- 1923 Cost of Living Survey. Report of the California State Civil Service Commission relative to the cost of living in California for Selected Family Groups. 34 p. Sacramento

This study was made by a special committee composed of one member of the California State Service Commission, Mr. J.C. Whitman, and four members of the faculty of the University of California, Miss Peixotto and Messrs. Blum, Jaffa, and Sproul, with the purpose of preparing five budgets indicating satisfactory health-and-comfort standards of living for laborers, clerks, and executives in the State employ. Prices were collected at two periods, October, 1920 and November, 1921, in San Francisco, Los Angeles, and Sacramento; these prices were then applied to quantity budgets based partly upon experience and partly upon the judgment.

The food budgets presented are based upon the nutritional standards of Professor Jaffa. The pamphlet presents in detail quantity and cost budgets for single men and women clerks, and for families of different size in the manual labor, clerical and executive groups. Detailed clothing budgets are presented for the three income levels for the man, his wife, boy of eleven, girl of five and boy of two.

- Cincinnati League of Women Voters. Living Costs Committee
1928 Spending the family income. 50 p. Cincinnati

The original purpose of this study was to prepare a standardized budget for the use of all relief agencies in Cincinnati. "As the study progressed the committee realized that a "minimum requirement" budget exceeded in cost the wages paid to unskilled and semi-skilled workers in Cincinnati, and the conviction grew that this important fact should be presented to the public." The budget presented is the result of the efforts of a committee of thirteen, four members of the staff of the school of Household Administration of the University of Cincinnati; one student of the University of Cincinnati, and six representatives of Cincinnati Social Agencies. It is divided into nine sections as follows: Food, Health, Clothing and Textiles, Housing, Operating Expenses, Leisure time activities, Savings and Investments, Financial Summary, Conclusions and Recommendations.

All expenditures are analyzed in detail. The food budgets present in quantity and cost, food allowances for a family of two adults and three children, one adult requiring 2800 calories, a child of 2-5 years, a child of 5-8 years, and an individual of 12-18 years, with suggestions for modifying these allowances under different circumstances. "In calculating the allowances, due consideration was given to the energy requirements, the distribution of calories, mineral and vitamin needs." The food lists were tested by a limited number of dependent families under the supervision of students taking the social program of the college of Liberal Arts, University of Cincinnati and a group of Mothers Pension families who were included in the annual project of the School of Household Administration University of Cincinnati.

Five clothing budgets are given with details as to quantity, materials, and costs of garments. The budgets presented plan for the clothing of a father, mother, daughter 12 years old, son 14 years old, and baby 3 years old.

Housing requirements are worked out in detail on different levels, because of the large number of low paid workers in Cincinnati.

Cleveland, Associated Charities. - Home economics committee.

1928 A suggestive budget for families of small income, 34 p., illus.
Cleveland

In attempting to do constructive social case work with dependent families, the Cleveland Associated Charities came to define wisely administered relief as "relief that is adequate, relief that is given on a health and not on an existence basis; relief so given that it will tend to the development of character and not undermine the desire for self support." The budget worked out by the Associated Charities Home Economics Committee had contributed so much to the development of social work in the city that it was decided to publish it for the use of individual families as well as for the use of social workers.

Food allowances are given for a man, a woman, boy 15-18, girl 15-18, child 11-14, child 7-10, child 2-6 years old, child 15-24 months old, and child 12-15 months old. They worked out on the basis of the recommendations of doctors from two different hospitals and the Western Research University Medical School, and are given in detail as to kinds of food, quantities and costs.

Clothing allowances are presented in detail for a man, a woman at home or working, a working girl, a working boy, a boy 10-16, a girl 10-13, a girl 6-10, a boy 6-10, a girl 2-5, a boy 2-5 years old, and an infant. "Minimum" and "Maximum" allowances are given for each item.

No figures are given for education, church expenses, insurance and other savings, car fare, newspapers because of extreme variations in the needs of individual families. Rent, gas, electricity and kerosene are also left to be decided in a given situation. Normal expense for coal for one stove is given. Expenses for cleaning materials and replacement of household articles are itemized in quantity and price.

Edson, K. P.

1919 A study of the cost of living. Industrial Welfare Commission, California. 4 p.

Harry, D. P., Jr.

1928 Cost of Living of Teachers in the State of New York, 185 p. New York.

Kansas: Women's Division of the Court of Industrial Relations

1922 Cost of Living Survey, Topeka, 42 p.

Nesbitt, F.

1927 Study of a minimum standard of living for dependent families in Los Angeles. Community Welfare Federation, Los Angeles. 36 p.

Nesbitt, Florence

1929 The Chicago standard budget for dependent families, Chicago Council of Social Agencies, Bul. 5, (3rd revised edition) 52 p. Chicago

A number of years ago, at the request of representatives of agencies engaged in family rehabilitation, the Chicago Council of Social Agencies prepared and published "The Chicago Standard Budget for Dependent Families." From time to time revisions have been made to meet fluctuations in the cost of living.

The basis on which the budget is made up is defined as follows: The minimum normal standard must furnish everything necessary for a manner of living "that will make possible a high standard of physical, mental and moral health and efficiency for adults, the full physical and mental growth and development of children, and provision for their moral welfare."

Food allowances listing kinds of foods, quantities, and costs are given for a man at moderately hard muscular work, boy 15-18, child 9-11, child 6-8, child 2-5 years old, for babies 6 months to 2 years of age, with suggestions for adapting the allowances to the need of persons with different calorie requirements. The standard set for the food of the man at moderately hard work is food that furnishes 3,500 to 3,600 calories of fuel, 75 to 100 grams protein, .7 to 1 gram lime, at least 2.75 grams phosphorus and 15 milligrams iron.

The clothing budgets presented are based on lists of clothing purchased obtained by social workers from families which "to their own knowledge were adequately clothed, and where they believed the management to be good." The lists are detailed as to kind, number, material and cost of garments. They provide for the clothing of a man at ordinary outside laboring work, woman at home, woman or girl at work in neighborhood factory or shop, boy at work in neighborhood factory or shop, school girl 10-12, school boy 10-12, school girl 5-9, school boy 5-9, child 1 $\frac{1}{2}$ -4 years old, and for an infant.

Recommendations for fuel consumption represent average usage in Chicago. Directions are given for computing cost of gas and electricity under different circumstances.

An inventory of the minimum household furnishings and supplies for a family of five or six persons, is given without cost figures, but annual replacement of household supplies and furnishings was secured from families maintaining "a reasonable condition of comfort and cleanliness" and is presented with quantities and costs. Furnishings for a baby's bed are itemized with quantities and costs.

Money expenditure for education is limited to the purchase of a daily paper and 15 cents a month for supplies for each child of school age.

No estimate is made of housing cost, carfare, or insurance as it is expected these expenses must be worked out for each individual family.

It is recommended that working children who turn their wages into the family income, be allowed spending money for recreation and education, and that a small allowance should be made to other members of the family for recreation.

Health expenditures are placed very low, since it is anticipated that public physicians and nurses will be used.

The pamphlet concludes with a "minimum" budget for the self supporting family, indicating why expenses in such a family are necessarily higher than in a dependent family of the same composition.

National Industrial Conference Board

1919 The cost of living among wage-earners. Fall River, Massachusetts
October, 1919. 18 p. Boston (Research Report No. 22)

This study, conducted in October, 1919, among a group composed largely of cotton mill operatives in Fall River, Massachusetts, had for its aim the determining of the cost involved in maintaining a wage-earners family at (1) a "minimum" standard and (2) a more liberal standard of living. On the basis of several studies made by other authorities, a "standard" budget was evolved, and prices prevailing in Fall River were applied to it; information on costs and standards of living was obtained from social and community organizations; figures to show the general increase in cost of living over a five-year period, were supplied by clothing and retail stores, by coal dealers, by corporations and associations, and by individuals closely in touch with local conditions. The report comprises the following data: weekly food budgets, quantities and cost, for a family consisting of man, wife and three children under 14 years of age; yearly clothing budgets, quantities and costs, for a man, a woman, a boy 13-14, a boy 5-6 and a girl 8-9 years old; weekly rates for rent, coal, wood, gas and electricity; sundry expenses, itemized, and on both a weekly and yearly basis, for a family of five persons; the complete budget divided into expenditures for food, clothing, rent, fuel, heat and light, and sundries, given on both a weekly and yearly basis for a family of five persons; percentage of increase in expenditures for each of these items in October, 1919 as compared with October, 1914; percentage distribution of the cost of these items in 1914 and in 1919, as compared with the percentage distribution for the country as a whole in 1914. Quantities, costs and percentages are given for both standards of living, except in the clothing budgets, which represent only the second more liberal standard, and are estimated to demand an expenditure 25% higher than would be called for by "minimum" clothing requirements.

National Industrial Conference Board

1919 The cost of living among wage-earners, Lawrence, Massachusetts,
November, 1919. 21 p. Boston (Research Report No. 24)

This study was conducted in November, 1919, among the textile operatives of Lawrence; its purpose was to determine the cost of maintaining, first, a "minimum but reasonable standard of living" and second, a somewhat more liberal standard, for representative wage-earners' families. Information on living conditions was obtained from social and community organizations; prevailing prices were collected and applied to standard budgets developed in the previous Fall River survey; results thus obtained were checked by data on actual family expenses from 350 mill operatives. The report presents the following information: a "minimum" weekly food budget, quantities and cost, and a more liberal budget, for a family consisting of man, wife, and three children under 14 years of age; a minimum yearly clothing budget, quantities and cost, and a more liberal budget, for each member of such a family; "minimum" rental cost, based on data obtained from 350 operatives and from a mill that had records

of the rents paid by 85 of its employees, from April to October, 1919; cost of coal, wood, gas and electricity; sundries, itemized, for a family of five persons, according to both the "minimum" and the more liberal standards; the complete budget, divided into Food, Shelter, Clothing, Fuel, Heat and Light, and Sundries, for a family of five persons, for both "minimum" and more liberal standards of living; percentage increase in the cost of these items between November, 1914 and November, 1919; percentage distribution of total expenditures among these main items of outlay, for Lawrence, 1914 and 1919, and for the country as a whole, 1914.

National Industrial Conference Board

1920 The cost of living among wage-earners, North Hudson County, N.J.
January 1920. 20 p. New York (Special Report No. 7)

This study, was made in January, 1920, among the silk mill employees of West Hoboken, Union Hill and West New York, with a view to establishing (1) the sum necessary for maintaining a "fair minimum" standard of living for a family of five persons, and (2) a comparison of price levels in 1914 and in 1920. The requirements of a family consisting of man and wife, and three children under 14 years of age, were "determined from the results of previous studies and modified to meet prevailing conditions"; local prices, charges, etc. to be applied to these requirements were collected from reliable sources. The information presented in the report comprises: a discussion of the population (density and nativity) of the three communities; a "minimum" weekly food budget, quantities and costs (these latter based on prices from 21 stores), for a family of 5 persons; average "minimum" expenditures for rent, fuel, heat and light; clothing budgets, quantities and costs, for a man, woman, boy 13-14, boy 5-6, and girl 9-10 years old; expenditures for "sundries," itemized and on both a weekly and a yearly basis, for a family of five persons; "minimum" budget, divided into food, rent, clothing, fuel, heat and light, and sundries, for a family of five persons; expenses of an unmarried woman, as a member of a family unit, for home expenses, clothing, and sundries (itemized); increase in cost of living since 1914 for a family of five persons -- percentage increase for each of the main budget items, and a weighted average of all items.

National Industrial Conference Board

1920 The cost of living among wage-earners, Greenville, South Carolina, Pelzer, South Carolina, Charlotte, North Carolina, January and February, 1920. 27 p. Boston (Special Report No. 8)

This study was made by the National Industrial Conference Board to determine the cost of maintaining a "fair minimum standard" of living among wage-earners in representative cotton mill cities of the south. Greenville and Pelzer, S.C., and Charlotte, N.C., were the localities chosen, and the data was collected during three weeks in January and February of 1920. The method followed was that of applying current prices of goods and services to a basic budget compiled from reliable information already assembled. The results are presented for the three cities separately, and comprise the following: description of the communities; "minimum" food budget, modified to conform to prevailing local food habits, for one week's food for man, wife, and three children under fourteen (quantities and costs, the latter based on quotations from more than 30 stores); average "minimum" rents; clothing budgets (quantities and costs) for man, woman, boy 13-14, boy 5-6, and a girl 8-9 years old; average cost, weekly and yearly, of coal, wood, electricity and kerosene; sundries (itemized), weekly and yearly for a "standard" family of five persons; a complete budget, weekly and yearly, of the expenditures of a family of five, divided into expenditure for food, shelter, heat, light and fuel, clothing and sundries; the average percentage increase for each of these five items of outlay, between January-February, 1914 and January-February, 1920, in a "minimum" cost budget for a family of five persons.

National Industrial Conference Board

1920 The cost of living among wage-earners, Cincinnati, Ohio, May 1920
New York (Special Report No. 13)

National Industrial Conference Board

1920 The cost of living among wage-earners, Worcester, Massachusetts,
June, 1920. 16 p. New York. (Special Report No. 16)

National Industrial Conference Board

1921 The cost of living among wage-earners, Detroit, Michigan, September, 1921, 24 p. New York (Special Report No. 19)

This study was conducted by the National Industrial Conference Board to determine the minimum cost of maintaining a "fair American standard of living" among the wage-earners of Detroit. No figures on income or expenditure of individual families were collected, but during the two middle weeks of September, 1921, "a survey was made of actual conditions"; social and industrial organizations, and individuals, furnished data to this end, and wage-earners were visited in their homes, and observed on the streets, at work, and in their recreations. Prices of goods and services were obtained from sources patronized by working people, and applied to quantity budgets which were developed from information previously assembled by reliable agencies, and adapted to the locality under investigation. The report presents general estimates as follows: a "minimum" food budget (quantities and cost) for one week, for a family consisting of man, wife and three children under 14 years of age, based on prices obtained from chain systems controlling 495 stores; percentage of families owning, renting, or rooming, and percentage renting at five different rent levels, based on responses from 275,000 persons; "minimum" clothing budgets (quantities and cost) for a man, a woman, a boy of 13-14, a boy of 5-6, a girl of 8-9 years; "minimum" weekly cost of coal, gas, and electricity; "sundries," itemized, for a family of five persons, yearly and weekly; a "minimum" budget, divided into food, shelter, fuel, light and heat, clothing, and sundries, for families with one, two, three, and four children, "minimum" weekly and yearly budget, divided into board and room charges, clothing, and sundry expenses (itemized), for an unmarried male wage-earner.

National Industrial Conference Board

1922 The cost of living among wage-earners, Anthracite Region of Pennsylvania, February, 1922, 43 p. New York (Special Report No. 21)

This study was undertaken by the National Industrial Conference Board in an effort to determine the actual cost of maintaining a "fair minimum American standard of living" among anthracite mine workers. The material was collected during the four weeks of February, 1922 in thirty-six cities and settlements of the Anthracite region in eastern Pennsylvania. Although a study of the living conditions among mine workers, the data was not secured directly and exclusively from miners and their families, but instead the following method was used: current prices were obtained for the principal items entering into family living, and applied to basic budgets obtained in earlier studies; these basic budgets were readjusted to conform with prevailing standards of living as ascertained from merchants, social workers, clergymen, union officials, bankers, real estate brokers, coal companies, and miners themselves. The information comprises a "minimum" food budget, giving quantities and costs; a "minimum" clothing budget, articles and costs; probable expenditures for fuel, light, clothing budget, articles and costs of recreation, reading and

other lesser expenses; a discussion of housing conditions and of rentals and water rates, and also of facilities and costs of recreation, reading material, insurance, medical care, organizations; a table giving the average cost, on both a weekly and a yearly basis, of maintaining a "minimum American standard" for families of differing composition, and for single men, in each of the three major coal fields, and in the anthracite region as a whole. There is also a table showing the percentage of change, between July 1920 and February, 1922, in the cost of maintaining such a "minimum standard".

National Industrial Conference Board

1926 The cost of living in New York City, 1926. 129 p. New York

This study represents an attempt to determine the minimum cost, in each of the five boroughs of New York City, of maintaining a "fair American standard of living". The material was collected in the spring of 1926, in those sections of the city in which native born whites, of Irish and of German parentage are the predominant factors in the population; the group under consideration comprises industrial workers and office workers, regarded as family units, as unmarried men with no dependents, and as unmarried women with no dependents. The method followed was that of applying prevailing rates to a basic budget; food requirements per person were worked out on a calorie basis; fuel and light were related to the number of rooms, which in turn were based on "health and decency standards"; clothing budgets were adopted for man, woman, boy, and girl; for unmarried workers, commercial rates for board, room, laundry and so forth, were determined; then, in the chosen neighborhoods, prices for goods and services, and additional facts and figures making for an adequate interpretation, were obtained from over 1000 persons, firms, and organizations.

Results are offered for the five boroughs separately, and may be compared; they include a general discussion of housing -- shortage, standards, minimum rentals for various types of dwellings, fuel and lighting; "minimum" food requirements of a family of five or six, for one week, quantities and costs; itemized clothing budgets for a man, a woman, a boy of 12 years, a boy of 2 years, a girl of 8 years; a discussion of expenditures for "sundries," covering classification for transportation, recreation, reading matter, stationery, postage, telephone, health, insurance, organizations, church dues, candy, cleaning, supplies, etc., furniture and furnishings. For industrial workers and office workers separately, figures are presented to show the average "minimum" outlay for rent, fuel and light, food, sundries (itemized) of families of different composition; yearly clothing budgets (quantity and cost) for husband, wife, twelve-year old son, two-year old son, eight year old daughter, and for unmarried female, self-supporting; the average minimum yearly and weekly cost (detailed expenditures) of maintaining a fair standard of living, for unmarried male and female workers.

National Industrial Conference Board
 1926 The cost of living in the United States, 1914-1926. 233 p. New York.

National Industrial Conference Board
 1928 The cost of living in twelve industrial cities. 76 p. New York.

New York (City) Charity Organization Society
 1925 A method for determining adequate clothing allowances for dependent
 and low income families. 25 p. New York

New York Nutrition Council. Committee on Economic Standards.
 1922 Good nutrition and adequate food allowances for the family.
 16 p. New York

This pamphlet "undertakes to answer in simple terms the question of diet suitable for children of different ages, how to determine the cost of such a diet, and simple nutrition facts which every social worker ought to know." Economical diets which will provide adequate nutrition, approved by Dr. Mary E. Rose of Teachers College, Columbia University, are given in terms of kinds and quantities of foods, calorie content and average cost in New York City, for children under two, children two to five, children five to twelve, children twelve to sixteen, and for children over sixteen and adults. The money cost of diets providing extra nourishment in cases of mal-nutrition, tuberculosis or other conditions, where extra nourishment is needed is calculated for each age group. A bibliography on food needs is appended.

United States Bituminous Coal Commission

1920 Majority and minority reports of the United States bituminous coal commission to the President 120 p. Washington, D.C.

In September, 1919, the rise in the cost of living during the World War, combined with unsatisfactory conditions in the coal mining industry inherited from the pre-war period, brought about a request from the United Mine Workers of America for a 60 per cent increase in wage rates throughout the Central Competitive Field and certain changes in working conditions. The request was refused and a strike resulted. Through the efforts of Woodrow Wilson, then President of the United States, the men returned to work with a 14 per cent increase in wages, and a commission was appointed to investigate the situation. The minority report of the commission (that of the representative of the mine workers) contains a minimum-comfort budget prepared by Professor F.F. Ogburn. The budget as printed gives the money cost of a minimum comfort budget "adjusted to the peculiar needs of mine-workers and to the peculiar conditions of the mining towns". The budget covers needs of a family of five and gives the figures on costs for the following items: food; clothing for husband; wife; boy 11; girl 5; boy 2 years old; housing, fuel, and light; miscellaneous living expenses; explosive, smithing, etc.

United States Department of Labor, Bureau of Labor Statistics.

1919 Tentative quantity and cost budget necessary to maintain a family of five in Washington, D.C. at a level of health and decency. 75 p.

The primary aim of this study was to furnish information on cost of living for use by the Joint Commission of Congress on Reclassification of Salaries for government employees. The budget is intended to give "the minimum of health, decency and comfort." "This budget does not include many comforts which should be included in a proper 'American standard of living'. Thus no provision is directly made for savings other than insurance nor for vacations, not for books and other educational purposes. On the other hand, a family with the items listed in this budget should be able to maintain itself in health and modest comfort. It should have a sufficiency of food, respectable clothing, sanitary housing, and a minimum of the essential sundries." The entire budget gives kinds and amounts of goods and services planned for, and their cost in Washington in 1919.

A detailed food budget is given for a family of five, in terms of kinds of foods, quantities and costs. The quantities chosen as representing the minimum food requirements of a family of five were obtained by averaging actual amounts of food used by 280 selected families with three children of about the ages indicated. The families chosen averaged in size approximately 3.35 equivalent adult males and purchased 3,500 calories of food per day. "By comparison with a recognized standard, the average dietary of 3,500 calories thus obtained was found to consist of meat, milk and vegetables, etc. in such proportion as to furnish the body in a general way with the necessary amounts of proteins, fats, carbohydrates, mineral constituents, acids and other substances necessary for the maintenance of health".

The quantities of clothing required by the standard family were arrived at by personal interviews with government employees and their wives, and others familiar with the standard of living required of the government worker's family in Washington, and were checked with several previous studies, particularly with the clothing purchases of approximately 850 families with children under 15, secured by the Bureau of Labor Statistics in 1918-19. Detailed figures are given for man, wife, boy 11, girl 5, and boy 2 years old.

Housing standards are described in some detail. Annual upkeep of furniture and furnishings was figured on the basis of an annual expenditure of 6 per cent on the total value of the furniture and furnishings of the usual household of persons of moderate means, plus an additional allowance for gas mantles and electric bulbs, curtains and a few other articles which could not be estimated quantitatively. A list of the furniture and furnishings priced in obtaining the estimate of total value is given in an appendix.

An allowance is made for assistance to the wife, in housework or laundry work, from one person for one day each week. Expenditures for cleaning supplies and services are planned for in detail. The expenditure for health is planned for on the basis of past expenditures of government employees. The premium for life insurance for the chief wage-earner is planned on the assumption that policy will be taken out at 35, the age when most policies are actually written.

Expenditures for recreation were allowed for on the basis of the average expenditures of the families of 64 families of government employees. No allowance is made for vacation. The budget provides for carfare, a daily newspaper, modest contributions to the church, membership in a labor organization, and one dollar a week for incidentals.

United States Department of Labor, Bureau of Labor Statistics.

1920 Minimum quantity budget necessary to maintain a worker's family of five at a level of health and decency. 20 p.

"This tentative quantity budget for a worker's family constitutes this Bureau's best estimate at this time of what should be included in the family budget of the working man. The Bureau was assisted in compiling this budget by the committee to study the Relationship of Standards of Living to Health, of the National Conference on Social Work, and especially by Miss Caroline L. Funt, Office of Home Economics, United States Department of Agriculture."

The organization of this quantity budget is very similar to that of the tentative quantity and cost budget published by this same Bureau and analyzed just above.

The chief differences are as follows: The quantity budget, as its name suggests, gives kinds and quantities of goods and services, but no costs. The food budget is presented in much greater detail and on a yearly instead of a weekly basis, and a new table is given itemizing weekly quantities of year-round, winter season and summer-season foods. The clothing budget first published has been revised after consultation with clothing experts all over the country, and the annual replacements planned have been divided into summer clothing, winter clothing and year-round clothing. Housing standards are made more specific with average figures on houses and apartments occupied by families in 20 cities surveyed in 1918-19. A standard of one room per person, plus one complete bath room with toilet was adopted as the minimum requirement consistent with health and decency. Size of rooms and requirements for light, ventilation and construction as defined by the Bureau of Industrial Housing and Transportation of the Department of Labor were adopted.

Fuel consumption depends so much upon geographic location and climatic conditions that an attempt to estimate a minimum quantity standard seemed impossible.

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The first article given above outlines in detail the methods used by the American Rolling Mills Co., the Holt Manufacturing Co., the National Industrial Conference Board, and the U.S. Bureau of Labor Statistics in determining changes in the cost of living in the United States. Lists of the commodities on which prices are regularly collected and the methods by which these prices are averaged by each agency are presented. A note attached to the lists of articles used by the Bureau of Labor Statistics explains that the lists are given as a repre-

sentative list of articles upon which price changes are based, but is not intended as a complete budget of family needs in any of the groups presented.

The second article gives average changes in cost of living, as computed by the Bureau of Labor Statistics in 32 different cities in the United States. For 19 cities figures are given for price changes from December, 1914, and in 13 cities from December, 1917. The figures for the individual cities are combined with figures on prices in 1913 to give price changes for the United States from 1913 to March, 1922. Figures on price changes for each city and for the United States are given for food, clothing, housing, fuel and light, furniture and furnishings, miscellaneous items, and all items - (Note: This index number has been continued by the Bureau of Labor Statistics and is published semiannually in the Monthly Labor Review.)

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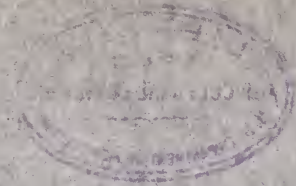
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BUREAU OF HOME ECONOMICS
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ON STUDIES OF COSTS AND STANDARDS OF LIVING
IN THE UNITED STATES

by

Faith M. Williams, Senior Economist

assisted by

Helen Connolly



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A Preliminary Report

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July, 1930

Supplementary Bibliography

January, 1932

STUDIES OF COSTS AND STANDARDS OF LIVING IN THE UNITED STATES

Purposes of the studies undertaken

Research workers in the United States have been carrying on systematic studies of costs and standards of living since 1870, and have produced in that time more than 200 reports, some very brief, and a number covering more than 200 printed pages.

These investigations have been undertaken for many different reasons. In a large number of cases it has apparently been felt that an accurate presentation of the standard of living of a certain group and the cost of maintaining that standard was of such obvious value that no statement of the uses to which the results of the work might be put was needed. In other cases, very specific reasons are given for having undertaken the investigation.

The earliest study which we have found is that by Young of the Federal Treasury, "The Cost of Labor and Subsistence for the year 1869, as compared with previous year." The author gives no reason for having undertaken the investigation, but it is significant that it was begun in a year of monetary difficulties, when a revision of the tariff was under consideration.

A desire to obtain information about comparative living costs and standards is apparent in the earlier reports of the Massachusetts Bureau of Labor Statistics, in the studies published by the Federal Bureau of Labor Statistics in 1891 and 1892 and in the series of studies by the Board of Trade of Great Britain, one volume of which is concerned with conditions in the United States. None of these reports was completely successful in developing techniques for comparing living standards in countries where manners and customs are fundamentally different. The problem of devising satisfactory measurements of comparative living standards remains to be solved.

Periods of rising prices, with maledjustments between the purchasing power of customary wages and the customary standard of living, have been most prolific of studies of living costs. Federal and State Bureaus of Labor and Agriculture, social agencies engaged in family relief, and employers' organizations have an interest in knowing just what standard can be maintained with a given income, at the new price level. The 1903 report of the Federal Bureau of Labor Statistics was the outcome, at least in part, of the rise in prices which began in 1900. The increase in living costs at the time of the last war was the signal for a number of studies of living costs and standards, notably that by the Federal Bureau of Labor Statistics in 1918-19, analyzed by Osburn in articles published in the Monthly Labor Review in 1919, and presented in detail in Bulletin 357, of the United States Bureau of Labor Statistics.

Studies of the cost of living at the standard of the professional group have been undertaken in part to determine whether or not salaries have kept up with living costs in periods of changing prices, and in part to demonstrate that teachers, (and college teachers in particular) are not receiving salaries commensurate with their training and ability, as shown by salaries in other professions with similar requirements, and that it is necessary to supplement teaching salaries by outside work.

In the period of rapid industrial development immediately following the Civil War there was great concern over factory hours and wages, and over the living standards which it was possible for workers to maintain with the wages being paid. The employment of women and children in factories was deplored in most states, and many of the early investigations were undertaken for the purpose of determining the number of families depending on supplementary earnings from wife and children. The question of minimum wages to be paid factory workers and the living standards which are possible in different places, for families or individuals dependent on these wages, ^{are} perennial and difficult problems. A large proportion of the State investigations reported on the following pages were initiated in order to help solve such problems. The same purpose lies behind the research of the National Industrial Conference Board in this field.

Federal and State bureaus and private philanthropic organizations have not infrequently studied living conditions where they were known to be somewhat unsatisfactory in order to ascertain the extent and the cause of the unfavorable conditions, and to uncover any variations which might suggest possibilities of improvement. An outstanding example of this type of investigation is that conducted by Chapin in New York City in 1907. After Chapin's records had been analyzed, he was able to indicate the income level at which it seemed possible, according to the evidence of the schedules, for a family of five with exceptionally good management and no unusual expense from illness or accident to maintain a satisfactory standard of living in New York City, and the somewhat higher income level at which the majority of families with fair management, and no indulgence in excesses might maintain a satisfactory standard.

Another very valuable study of this type is that by Kirkpatrick and Hawthorne on sources and uses of income among 300 farm families in a region of low incomes and expenditures in Ohio.

Two studies, with a similar purpose but in a more restricted field, have been conducted by Dickins of the Mississippi Agricultural Experiment Station. She has investigated the relationship of the amount of family income, the amount and value of food furnished by the farm to the family, and the amount and cost of food purchased to the health of families in districts where rickets and pellagra were prevalent.

Most studies of farm family living have apparently been undertaken for the purpose of presenting an accurate picture of the standards of living in the communities studied, but there are a few which have been initiated for the purpose of comparing urban and rural standards. Recent studies on this subject are those by Zimmerman at the University of Minnesota Agricultural Experiment Station, and by Gee and Stauffer at the University of Virginia.

Methods used in securing data

Throughout this report there has been an attempt to use the term "Questionnaire" to mean a form or list of questions sent out by mail to the persons from whom information was desired, and returned by mail; to confine the term "schedule" to lists of questions in the hands of an investigator who visits the family and obtains from some one (usually the housewife) estimates, as carefully checked as possible, on family expenditures and on other matters connected with the standard of living; and to use the word "record" to apply to account books kept by a family from day to day, recording expenditures and goods received without money expenditure at the time of the expenditure or receipt.

The use of questionnaires has not, in general, been successful in this country for the purpose of gathering information on costs and standards of living. The percentage of returns has been small, and the answers on the forms returned have been inaccurate and difficult to interpret.

The use of schedules has become the most common method of obtaining data. It is difficult, expensive, and frequently impossible to obtain enough account books from any given sample of the population accurately to present its standard of living. In particular, it is impossible to obtain account books kept for any length of time from families in the lower income groups.

It is generally recognized by investigators that data collected by the schedule method is apt to contain serious inaccuracies. This difficulty can be avoided in part by obtaining figures on amount and sources of income in detail, amount of expenditure in detail, and checking one against the other, discarding those schedules where it is impossible to obtain a reasonable balance. Another method is to supplement schedules with accounts kept for a month or more. This method was used by More in her study of living standards in the Greenwich neighborhood of New York City and to a lesser extent by Chapin in his study of workmen's families in several parts of Greater New York City.

Recent studies of the use of schedule and account methods in studying farm family living give additional emphasis to the need for supplementing schedules by accounts, and also indicate the necessity for supervising and editing accounts. A study undertaken by the Bureau of Home Economics of the United States Department of Agriculture, now nearing completion, compares accounts kept by certain farm housewives and sent in to the Bureau weekly week with schedules covering same period, and obtained from these same housewives before they had seen the annual summaries of their accounts. A comparison of the two sets of data show a large degree of inaccuracy in the schedules. In particular the majority of farm housewives very greatly over estimated amounts of foods consumed when they were answering the interviewer's questions for the purposes of the schedule returns. As the women who took part in this experiment were above average in education and in economic status, the comparison seems to point to the need for further research into methods of obtaining data, and the Bureau of Home Economics expects to continue this study during the coming year.

The term "budget" has in this report been used to mean a systematic plan for future expenditures. Quantity budgets have been made up by different investigators in several different ways and priced in different communities. In using such figures it is important to distinguish between living costs computed by means of a hypothetical budget, and living costs calculated from actual family

expenditures, and to know the basis on which each set of figures was secured. The difficulties involved in pricing the same budget in different places arise from the lack of standardization of household goods and the consequent impossibility of knowing whether identical goods and services are being priced in different towns.

Numbers of families investigated

The number of families from whom information is secured varies greatly in the different studies. Studies based on accounts kept for a period of a year or more are not to be published on the basis of a small number of records because of the difficulty of securing such accounts, and the value of carefully compiled figures. Kyrk summarized the accounts of 10 Iowa farm families in a bulletin published in 1926; Lively presented the household accounts kept by 26 Ohio families from April, 1925 to April, 1926; Kirkpatrick and Hoverstad published in 1927 a summary of the accounts of 25 farm families in Pine County, Minnesota.

The number of families included in studies based on schedules is usually larger. The largest number recorded in any one study is 25,440, the total number of families from whom schedules were gathered in 1903 by the Federal Bureau of Labor Statistics. The number of families visited in studies limited to a single state vary greatly. In recent studies of farm family living made by the State Agriculture Experiment Stations from 250 to 350 families have usually been included. The size of the sample selected in the various studies depends, of course, upon the number of economic groups considered, the character of the data secured and the amount of detail desired. Certain investigators have been working out methods for testing the representative character of the families from whom data has been obtained. (See Zimmerman and Black, and Anderson.)

Methods of analysis

It has always been recognized by American statisticians that it is desirable to take into account size and composition of family in analyzing figures on family expenditures. This has sometimes been done by restricting the investigation to families of a given number of persons, and sometimes by summarizing expenditures according to number of children in the family. Neither of these methods is entirely satisfactory because of differences in needs among adults and among children. The method originated by Engel, the Prussian statistician, of measuring family size in "adult units", was developed in 1890 by Wright at the Federal Bureau of Labor Statistics into a method for measuring the demand for food by families of different composition through a scale which is still in use by that Bureau. In the meantime, research has been under way in other organizations which has resulted in the development of scales for the purpose of measuring the demand for food which more accurately represent the dietary need of persons of different age, sex, and occupation, than does the Bureau of Labor Statistics scale. Technical Bulletin 8 of the Bureau of Home Economics of the United States Department of Agriculture discusses problems connected with developing scales for measuring the demand of food from the nutritional point of view, and an article in the Journal of American Statistical Association for September, 1929 presents the matter from the economic point of view.

The need for a scale to represent relative expenditures for goods of all kinds by persons of varying age and sex in different economic groups emphasized by Engel, and met by his scale of "Quets", for the group he was studying, was considered by Sydenstricker and Ying in 1922 in a study of illness as it is related to economic status in mill villages of South Carolina. Kirkpatrick and Thaden have both worked on the development of similar units for farm families. These scales will facilitate the interpretation of figures on living costs when the technique of their calculation and use has been perfected.

The problems connected with measuring living standards, as distinguished from living costs are legion. The measurement of the nutritive adequacy of food consumed has been most satisfactorily treated up to the present time. The first studies of this sort carried on in this country were made under the direction of W.O. Atwater in investigations relating to food consumption and food costs. Many of the early studies of wage earners expenditures contain discussions of dietary requirements without any attempt to measure the nutritive content of the food consumed by the group being studied. Chapin's study of the standard of living of workmen's families in New York City was one of the first to combine a dietary analysis of food consumption records from the group being studied, with figures on the whole range of family expenditures. Chapin was also successful in collecting quantitative figures on the housing and equipment of the families he studied which made possible a more accurate valuation of living standards than could have been made by using figures on money expenditures alone.

Some investigators have found the standards set up by the Federal Bureau of Labor Statistics in 1920 in its "Minimum Quantity Budget for a workman's family of five" a useful measuring stick in evaluating living standards. This budget suffers, as do other studies using the word, from the difficulty of defining the word "minimum". Even in the extreme sense of "minimum for subsistence," the word is difficult of definition, but in the sense of "minimum for health and decency" or "health and comfort", it gives rise to a great deal of controversy, because of the impossibility of securing agreement on quantitative measures of the "minimum" under consideration. Except as future research establishes quantitative data on the relationship of certain standards to health, the use of the word seems undesirable. For the present, the field of nutrition comes nearer to providing complete data of this sort than any other. In other fields it is quite possible to set up quantitative standards or allowances for housing, clothing, and so on, to give all the evidence on which the standards were based and then to refer to them by the name of the organization sponsoring them, without claiming that anything so final as a "minimum" has been arrived at.

VI

The study of the relationships between different factors making up the standard of living has been a subject of some interest to students in this field in recent years. A study by Ogburn of the Standards of Living in the District of Columbia in 1916 uses correlation coefficients and regression equations for measuring the way in which expenditures for different goods used by the family vary with size of income and size of family. Some of the recent investigators of farm living standards have also applied coefficients of correlation to this field, along with the more usual tables of frequency distributions.

It has been impossible to complete the analysis of all the studies listed in the pages which follow, in time to send a copy of the bibliography to the Pan Pacific Women's Conference. All the studies here listed have been read and the authors are confident that all the different kinds of methods which have been used in studying costs and standards of living in the United States are represented in this preliminary form of the bibliography.

PART I

STUDIES BASED ON MATERIALS GATHERED FROM INDIVIDUAL
FAMILIES, ARRANGED ACCORDING TO OCCUPATIONAL GROUPSSection I. Studies of Costs and Standards of Living on farms
in the United States

For supplementary bibliography see pages 105 - 112.

Anderson, W. A.

1928. Living conditions among white landowner operators in Wake County.
N.C. Agr. Expt. Sta. Bul. 258, 49 p., illus.

A survey of cash receipts and cash expenditures, of products raised and of their disposal by 294 white landowner farm operators in the Piedmont section of North Carolina was undertaken by the Agricultural Experiment station of that state in the winter of 1926 for the purpose of ascertaining facts concerning living conditions among the group studied.

The report gives separate figures for the families surveyed in 18 different townships, and figures for the entire group in regard to the following matters; number of farm operators from whom schedules were secured; average age of operators; type of farming, average number of acres owned and operated in farm, average crop-acres per farm; average size of family in persons; years of the farm experience of operators; birth place of operators; the average number of years spent by operators in different tenure classes; average cash income from farm crops, labor, animals, investments, and all sources; average distribution of all cash expenditures under the following headings, farm, investments, food, household, clothing, health, insurance, education, reading, personal, auto, church, recreation; distribution of living expenditures under the following headings, home and household, food and fuel, health, education, insurance, clothing, reading, personal, automobile, church and charity, social activities, total; books purchased and size of libraries; data on automobiles owned, and expenditures for automobile upkeep.

Further tables give the age distribution of all the men from whom schedules were obtained, the extent of their education, distribution of the cash income of the whole group from crops of different kinds, animals of different kinds, labor of different members of the family, and investments of different kinds; number and percentage of operators belonging in specified cash income groups. An analysis of the food and fuel utilized during a year shows the money value of different kinds of food, and of coal and wood purchased, and

produced on the farm. The goods produced were evaluated in terms of what they would have cost the farmers had they been purchased for cash. Data on clothing expenditures show average expenditures for all families on suits, shoes, dresses, coats, hats, work clothes, underwear, stockings, shirts, other clothes, and on their cleaning, and average amounts spent per person for individuals of different age and sex. A distribution by income groups shows the amount of total expenditures going to farm and investments. This tabulation is supplemented by another showing the kinds of goods purchased for the farm business, and still another showing numbers of farmers making investments of different kinds and the average amounts invested. Additional tables on expenditures for family living give average expenditures per family for the entire group for new buildings, building additions, paint, screening, general repair, household furnishings, telephone, household help and other household costs, doctors, hospital, nurse, dentist, oculist, medicine, birth, deaths, jewelry, toilet articles, candy, tobacco, gifts and other personal items. The number of families having automobiles of different makes, and the number of trips made for business and pleasure, the time consumed and the length of trip are also given. Figures presented on the physical environment of the families studied are as follows: the size of the houses occupied, the prevalence of different types of heating and lighting systems, average number of windows and outside doors per house, the per cent screened, the number of families having running water, or pumps in the kitchen, the distance water was carried by other families, the number having kitchen drains, refrigerators, indoor bath and toilet facilities, the average value of sewing machines, washing machines, and telephones, furniture per family.

Anderson, W. A.

1929. Farm Family Living among white owner and tenant operators in Wake County. N.C. Agr. Exot. Sta. Bul. 269, 101 p., illus.

This second study in the North Carolina series was undertaken for the purpose of comparing living conditions among landowning farm families with those prevailing among ^{tenant} families in Wake County. The figures on income and expenditures, crops raised, and their disposal by 294 landowning families presented in Bulletin 258 (summarized above) are again presented in this bulletin, but in slightly different form and are placed side by side with similar figures gathered by the schedule method from 300 tenant families. Each table gives figures from owner and tenant families separately. The kinds of data presented in the two bulletins are very similar, but in the earlier one the predominant method of presentation is by township averages, and in the later one by averages according to income groups.

The following kinds of data appear in the second bulletin but not in the first: the probable error of the sampling for both owner and tenant families; age and sex distribution of children at home; correlation tables showing relationship of number of years farmed and age of operators in each group, length of residence of tenant farmers on farm being operated; schedule was taken; number of tenants not having moved since they began farming; acreage devoted to different kinds of crops, number of families devoting different percentages of their total expenditures to clothing; numbers of families keeping farm animals of different kinds.

Anderson, W.A.

1930. Factors influencing living conditions of white owner and tenant farmers in Wake County, 1926. N.C. Agr. Expt. Sta. Tech. Bul. 37, 58 p.

The purpose of this study, the third study in the North Carolina Series, was to investigate the extent of changes in family living conditions among white farm owner and tenant families, as changes occur in some of the factors which affect living conditions. The data analyzed are the same as those presented in Bulletin 269, but different methods of analysis are used.

The items of expenditure for family living studied are those for food, fuel, clothing, automobile, personal items, home and household, and advancement. The chief question studied is "how are these items of family expenditure affected by the gross cash income of the family, the size of farms operated, the size of family, the educational status of the family head, the proportion of the family budget which is devoted to the farm business and farm investments, the value of food and fuel produced on the farm for family use, and by the inter-relationships existing between the items of expenditure themselves." Gross, partial and multiple correlation with the accompanying per cent determinations and per cent changes were employed to answer these questions. Size of family was measured according to the revised Atwater scale.

Bailey, I. M., and Snyder, M. F.

1921. A Survey of Farm Homes. Jour. Home Econ. 13: 346-356

This study presents the results of a survey of farm homes made in the spring of 1917 in selected areas of St. Joseph County, Michigan, comprising 91 farms, of which 72 were operated by owners and 19 by tenants. A few of the farms specialized in fruit raising or in dairying, but the majority were given over to diversified farming.

The report presents the data in the form of a general discussion which deals with character of farm, of house, composition of family, and social and economic conditions; averages and percentages are given in the text to clarify the discussion and make comparisons possible. The points covered are as follows: extent to which livestock, orchards, gardens, grounds are reported; condition of houses, number of rooms, storage facilities, water supply and sewage, heating and cooking arrangements, modern conveniences and labor-saving devices, employment of household help, length of working day, and time spent on special kinds of work; the average size of family, number of children, hired help, etc.; income, expenditure for food, clothing, fuel, health, reading matter, railway fares, and household help, and comparison of household expenditures with money derived from poultry and dairy products (the homemakers' contribution); general character of social and community life.

Black, J.D., and Zimmerman, C.C.

1927. Family living on successful Minnesota Farms. Minn. Agr. Expt. Sta. Bul. 240, 25 p., illus.

From a study of 694 farm families in 13 communities of Minnesota, 65 families (50 owners and 15 tenants) were selected as the most successful, in that they made the largest incomes and lived the best; and the data for these families are analyzed to show their home comforts and conveniences, and the amounts that they expended for various items that enter into family living.

For the 50 owner families average cash expenditures, and the percentage which each is of total cash expenditures, are given for the following items: farm expenses, automobile expenses, mortgage interest, payment on principal of mortgage, family living, life insurance, and investments (exclusive of life insurance). The outlay comprised under the term "family living" is itemized, showing average cash expenditure and percentage of total family living for each item, as follows: food, clothing, fuel, house furnishings and operating expenses, health, advancement, personal.

Living conveniences are indicated by the ownership of automobiles, the average number of rooms per family, the quality of furniture and furnishings, and the number of homes equipped with central heating and lighting plants, water and drainage systems, and washing machines.

In order to show the relative cost of farm and city living, estimate is made of the probable city rentals for equivalent types of housing, the probable cost of specified items of food furnished by the farm, and the variation in cost of other factors, the use of which depends somewhat upon environment. As a concrete example, the expenses of Minneapolis school teachers' families, as computed by Royal Meeker, are compared with these 50 successful farm-owner families, on the score of average family size, expenditure for each of the items, fuel, light, water, clothing, automobile, upkeep, and provision for the future; this discussion is then summarized in a table which gives the equivalent city cost of those items which are furnished by the farm, and the extra cost in the cities of those items which both farm and city families must purchase.

Comparison is also made between these 50 families and 157 farm families studied in 1924, on the basis of expenditure for farm expenses, automobile, investments, clothing, personal items, advancement, health, and house furnishings, operation and fuel; and between these 50 families and 30 less prosperous neighbor families, on the basis of money expended for food, clothing, advancement, automobile, and investment. Other facts presented in reference to the 50 owner families are, the extent to which farms are encumbered and the extent to which such debt is being reduced; the degree of education which the children of these families are receiving; the average cash receipts from specified sources, and per cent which each is of total income; for the groups engaged in each type of farming (grain, dairy, other livestock, truck), the percentage distribution of income from specified sources, and the average cash expenditure for living, farm, auto, investment.

The 15 successful tenant families are compared with the 50 successful owner families on the following points: average size of farm and amount of indebtedness; average family size; average cash receipts; average cash expenditures for family living, farm (excluding rent), rent (cash only), interest, principal of mortgage, other investment, life insurance, automobile, food, clothing, house furnishings, etc. (including fuel), health, advancement, personal, total cash expenditure. To facilitate comparison of the group of 65 families with families of normal income, 438 Minnesota farms are classified according to specified amount of cash receipts in 1924 and 1925, and for each group there is shown the number of families, the average income, the average farm expenditure, and the average remainder. A presentation of material computed from census data, showing for Minnesota farms, for the years 1900 to 1926 inclusive, the average gross cash receipts, the average expenditure for taxes, income and wages, and the average amount remaining, gives some indication of the economic condition of farmers as compared with other social classes.

Clark, E. L.

1927. Average clothing expenditures of 86 farm families of Franklin County, Vermont, during 1923-24.

U.S. Dept. Agr., Bur. Home Econ. Prelim. Rpt., 53 p. (Mimeographed)

This study, which was made under the auspices of the Bureau of Home Economics of the United States Department of Agriculture, in cooperation with the Extension service of the University of Vermont, presents a detailed analysis of the clothing expenditures of 86 farm families in Vermont, at first separately, and then combined with figures on the clothing expenditures of 1,488 farm families in New York, Kentucky, Ohio, Missouri and Alabama. All the figures utilized in this report were collected by the schedule method in connection with a larger study of the standard of living of farm families, and were summarized in part with figures from other states by E. L. Kirkpatrick in a bulletin on "The Farmer's Standard of Living". The estimates obtained in Vermont cover the year ending June 1, 1924, and in the other states a year sometime between September 1, 1920 and August 31, 1924. Average clothing expenditures per family are compared with the total value of family living, for each state. Average clothing expenditures per person for Vermont, and then for the six states combined, are presented for four different value of living groups. For each group figures are given on average expenditures for clothing of all kinds, and for headwear, outer garments, undergarments, footwear, accessories, and for upkeep and repair by individuals of each sex, classified according to age, and marital status. Average expenditures for sons and daughters below three years old are grouped together. The study concludes with a detailed account of garments made at home and garments purchased ready-to-wear for all persons in the 86 Vermont farm families. This material is to appear in permanent form in a printed bulletin, covering the clothing expenditures of 1425 families.

Clark, E. L., and Kirkpatrick, E.L.

1925. Average Quantities and costs of clothing purchased by farm families.

U.S. Dept. Agr., Bur. Home Econ. and Bur. Agr. Econ. Prelim. Rpt., 24 p. (Mimeographed)

This report presents in detail the number, kinds and costs of articles of clothing purchased in the year 1922-23 by individuals in 1337 farm families living in selected localities in Ohio, Kentucky, Missouri and Kansas. The data were collected by the schedule method in connection with a larger study of farm living standards made by the Bureau of Agricultural Economics and of Home Economics in the United States Department of Agriculture, in cooperation with state universities and colleges. The figures in this report were summarized in part with clothing expenditure figures from other states in a bulletin on "The

Farmer's Standard of Living" by E.L. Kirkpatrick, and are to appear in final form in a bulletin of the Bureau of Home Economics covering the clothing expenditures of 1425 families. This preliminary report was published in order to put the most complete data then available at the disposal of research workers. The average clothing expenditures for family are shown for each state in relation to the total value of family living, and for the four states gives the average expenditures of husbands, wives, sons, and daughters for all types of clothing and for headwear, outer garments, undergarments, footwear, accessories, and upkeep and repair. The expenditures for sons and daughters are given in six age groups for each sex, with the figures for children under one year grouped together. Further tables present for each one of these age and sex groups, for the four states combined, the number of persons purchasing each kind of article of clothing, the average number of articles purchased per person and the average cost per article.

Dickens, D.

1927 A study of food habits of people in two contrasting areas of Mississippi. Miss. Agr. Agr. Expt. Sta. Bul. 245, 52 p., illus.

This study, intended to show relation of dietary conditions to health, was made in typical counties and among representative families in the Brown Loam and the Short Leaf Pine area; 53 families in the first area, and 47 in the second, kept under intelligent supervision, daily records of food furnished from the farm, purchased and wasted, over a period of 2 weeks.

The report consists of general discussion of the areas studied, food habits and preparation, methods of calculating diet, comparison of results with the standard set by Sherman, vitamin content, home raised products, and seasonal variations in food consumption. Specific information for each of the areas is offered in tables and graphs as follows: number of families having specified number of members; number of husbands, wives, children, in specified age groups; number of families, and chief occupation of family, in each area, average gross income, and number of owners and non-owners; number of food records received, complete and incomplete, and average nutritive value per man per day for each of the 5 chief nutrients (energy, protein, calcium, phosphorus, and iron); number of families with diets 10% or more below standard for each of the 5 nutrients; frequency distribution for each nutrient; percentage distribution of each nutrient among 9 specified food groups, and for calories, percentage distribution in each of the 4 seasons, also; food supply, items and weight, consumed during the 2-week period (a) by a family in which the children showed evidence of rickets, and (b) by a family in which the children showed no signs of rickets; a list of the foods most commonly consumed, showing the amounts of each used during 2 weeks, in each of the 4 seasons; a week's menu (a) from a family having a monotonous diet, and (b) from a family having one of good variety; number of families spending specified amounts for food, per man

per day; average percentage distribution of cost among 9 food groups; percentage furnished and purchased, by seasons, and for each food group; number of families and average intake for each nutrient, for diet of specified cost per man per day; number of families with yearly income of \$2000 and over, and \$1200 and under, spending specified amounts for food, per man per day; percentage of adults and of children having specified physical defects; relative frequency of defects of specified character found in the children of 16 families having a satisfactory diet, of 26 families on diets below standard in one factor, of 33 families on diets below standard in more than one factor; percentage of families showing specified symptoms indicating poor general health, and percentage having specified illnesses in 1926; average increase during 1926 in height and weight, for boys and girls, by age groups.

A short bibliography is appended.

Dickins, D.

1928 A nutrition investigation of negro tenants in the Yazoo-Mississippi Delta. Miss. Agr. Expt. Sta. Bul. 254, 52 p., illus.

This record of nutrition in the Yazoo Mississippi Delta was initiated for the purpose of obtaining new data on the food consumption of a group where the death rate is very high and pellagra is prevalent. Records were obtained of the amounts of food consumed by 80 negro farms in four different counties for one month, beginning in February, 1927. Two negro women in each of the farm counties supervised the records, visiting each family each day for the month of record keeping. Only families in which there was one member who could read and write were selected. Size of family is given in persons, and in adult male units according to the Hawley energy and protein-mineral scales. Average gross cash income per family is given by plantations. Graphs present the nutritive value of food consumed per adult male unit per day, and the per cent of the families which were 10 per cent or more below standard for each nutrient. The writer presents the relationship of home food production, and of different methods of paying for food to the nutritive content of the family diet. Foods raised at home were priced at average retail selling prices found in the stores of the nearest town and the total money value of foods consumed calculated. Two frequency distributions present average money value of all food consumed and the nutritional content of diet as compared with its money value. Relationship of money value of food is given to amount of total income. The study concludes with a bibliography on Negro food consumption and health.

Frissell, F. P., and Revier, I.

1899. Dietary studies of negroes in Eastern Virginia in 1897 and 1898.

U.S. Dept. Agr. Off. Expt. Sta. Bul. 71, 45 p., illus.

This study was conducted under the immediate supervision of W.O. Atwater, and constitutes a part of the nutrition investigations of the United States Department of Agriculture, Office of Experiment Stations. It is presented in two parts, the first part dealing with negro farmers of the Dismal Swamp region in Franklin county, and the second part, with negro families engaged in various employments, and living in the immediate vicinity of Hampton, Elizabeth City county.

For the first group, data consists in 12 dietary records, waste as well as food supplied the family, obtained during May and June, 1897, and covering periods of from 7 to 30 days. There is, for each individual family, a brief description of family composition, and of home and farm, followed by a table showing the length of time covered by the study, the kinds and amount of food consumed, the cost and nutritive value (protein, fat, carbohydrates, and fuel value) of food per man per day for each food, for waste, and for the diet as a whole.

The material for the second part was collected in the spring of 1898, and in addition to a discussion of homes and surroundings of the families studied, comprises 7 dietaries which are presented in the same manner as those in Part I. For purposes of comparison, a summary is given which shows cost, and protein, fats, carbohydrates and fuel value, per man per day, as follows: for each of the 19 Virginia families; for all 19 combined; for 4 Alabama families with minimum and maximum protein and energy consumption; for 20 Alabama families combined; averaged for 4 Mexican families in New Mexico; for 14 mechanics' families; for 10 farm families; for 14 families of the professional class.

An appendix gives percentage composition (refuse, water, protein, fats, carbohydrates and ash) for each kind of food appearing in the dietaries.

Funk, W. C.

1914. What the farm contributes directly to the farmers' living. .
U.S. Dept. Agr. Farmers' Bul. 635, 21 p., illus.

This bulletin is the result of a study carried on during the summer of 1913, to determine the value of that part of a farm family's living which is furnished directly by the farm. In order to represent variations in products due to climate, type of farming, and length of growing season, 10 areas were studied, as follows: cotton districts in North Carolina, Georgia, and Texas; dairy regions in Vermont, New York, and Wisconsin; corn growing districts of Iowa and Kansas; and general farming districts of Pennsylvania and Ohio. Families were visited at random within these selected districts, and estimates sought from farmers and housewives on the value of products furnished by the farm for household use; this method resulted in the securing of satisfactory records from 483 families, 72% of whom were farm owners and 28% tenants, fairly evenly distributed through the 10 areas.

The information thus obtained is presented under the following points: proportion of the farmer's living expenses furnished by the farm; size of family (the Atwater adult-male-equivalent scale is used); food consumption and relation of food cost per person to size of family; fuel consumption; house rent; water supply; labor; cost of board and lodging; for owner and renter families, relative value, per family and per person, of total food consumption and of food furnished by the farm. Tables as enumerated below, give data for each of the 10 areas, with averages and totals for all areas combined: number of families, average number of persons, and average yearly value, per family and per person, for food, fuel, and rent furnished, and for food, fuel and oil purchased; average farm acreage, and average yearly cost per family of furnished, purchased and total food, percentage of food consumption purchased, percentage purchased, and value per person of total yearly food consumption; percentage distribution of food consumed among 4 major groups (groceries, animal products, fruits, vegetables), and percentage of each group purchased and furnished; average yearly consumption per person, pounds and value, of specified articles of food; percentage of pork, beef, poultry, furnished by farm, and percentage of all meat consumption furnished, purchased; for families of 2 and 3 persons, 4 and 5 persons, and 6 persons and over, the number of families reporting, and the yearly value of purchased, furnished and total food consumption; the amount and value of yearly fuel consumption, classified as coal, wood, oil, corncocks; the average yearly value of all fuel consumed, with per cent purchased and furnished; the yearly wood consumption, cords and value, per family and per person, with per cent purchased and furnished; the average value at time of study, of 361 farm dwellings; the average cost, per family and per person, of household labor, for families of specified size; the yearly value of food, fuel, and household labor chargeable to board, and of food, fuel, household labor, oil and rent chargeable to board and lodging, for hired help, with the average yearly and monthly cost per person of board, and of board and lodging.

Funk, W.C.

1916. Value to farm families of food, fuel, and use of house,
U.S. Dept. Agr. Bul. 419, 35 p., illus.

This report, intended to show the value of products which the farm furnishes directly to the farm family, is an extension of the data published by the same author in Bulletin 635 (above), and is based on information obtained by the survey method during the summers of 1913 and 1914, from 950 farm families in widely separated sections of the country. The localities and the types of farming represented are as follows: Georgia, North Carolina and Texas, cotton districts; Iowa and Kansas, corn-growing; North Dakota, grain-growing; New York, Vermont and Wisconsin, dairy; Maine, dairy and apples; Ohio and Pennsylvania, general farming; New Jersey, market gardening; California, irrigated fruit district.

The material is presented in a number of tables, each accompanied by a brief discussion, and indicates for each region studied, the number of families reporting, the average size of family, the average acreage per farm; the average yearly value per family and per person, of that part of the family living which is farm furnished, and percentage which it is of the total value of family living; the relative value of furnished and purchased food and value of consumption per family and per person; percentage distribution of food value into 4 major groups, with per cent in each group purchased and furnished; the average yearly value, per family and per person, of meat products, dairy products and poultry products, with relation of furnished to purchased; the effect of family size, and the effect of high consumption of specified groups of food, upon cost of the diet; the average quantity of specified foods consumed yearly per family and per person, with the average amounts furnished by the farm, and purchased; for 150 families in 3 southern states, and 800 in 11 northern and western states, the average quantity consumed per person and per family, and the percentage purchased, for each of 52 articles of food; value per person of total food consumption, and percentage purchased and furnished, for owners and for renters; average amount and value of coal, wood, and oil, consumed yearly per family; average value and average yearly rental value, of 825 farm dwellings, and for 4 selected localities, relation of size of house (number of rooms) to size of farm, value of house, size of family, and value of food consumed per person; on basis of value of food, fuel, and household labor chargeable to board, the monthly and yearly cost per person of board on the farm, and the percentage actually paid out in cash.

Gee, W., and Stauffer, W. F.

1929. Rural and urban living standards in Virginia, Va. Univ. Inst. for Research in the Social Sciences, Inst. Monog. 6, 133 p.

This study was begun in September, 1928, for the purpose of comparing the standard of living of poor, intermediate, and prosperous white families living under rural and urban conditions in Virginia. The rural families were located with the aid of the county agricultural agents in Culpeper and Bedford counties. The urban families studied live in Lynchburg, where the secretary of the Retail Merchants Credit Association, the secretary of the Chamber of Commerce, the responsible official of the Associated Charities and similar persons, gave the authors information in regard to the residential districts where representatives of each economic group might be found. The samples studied include 137 rural families (40 poor, 85 intermediate, 12 prosperous) and 140 urban families (35 poor, 78 intermediate and 27 prosperous). All tables give separate figures for each economic group.

The analysis of the farm families' standard of living presents average size of family, and average total value of family living, under the following headings: food, clothing, rent, fuel and light, cost of automobile used by family, others household operating expenses, household furnishings and equipment, health, personal, advancement and recreation, and life and health insurance. A summary classification gives money value of goods satisfying "primary wants." The value of food consumed per adult male energy unit is presented showing value of food purchased, and value of food produced and consumed by the family. Food produced on the farm was valued in terms of wholesale prices in the nearest market. Further tables show average expenditures per family for church, charity and gifts, number of families investing in insurance, expenditures for advancement and recreation inside and outside the home. The figures on farm family living in eleven states collected under the supervision of F.L. Kirkpatrick in 1922-24 have been rearranged and are presented so as to show comparisons between the value of various groups of goods and services received by the three groups of Virginia farm families in 1928 and by three similar but larger groups of farm families in other states in the earlier period.

A chapter on social and environmental factors gives for each group of families average number of children living at home, and away from home, years between births of children, average number of years of formal schooling, of husband, wife, and children over fifteen, number of fathers and mothers having attended a certain number of years of elementary and high school and college, percentage distribution of children now in school, and with school completed in college, high school and elementary school; and occupational status of children over fifteen years of age living at home, and not living at home. A final table presents average utilization of time by farm families under the following headings: hours in working day, summer and winter, hours spent in reading, number of visits in community per month, number of trips to town by family per month, number of trips for pleasure or rest per year, per cent of families entertaining at home, and outside home rarely, occasionally and frequently.

The analysis of urban family living is presented in a similar way. Clothing expenditures are compared with the clothing allowances in the Chicago Standard budget for dependent families, and housing accommodations with certain standard housing requirements. Another table gives amount spent for reading matter by city and farm families. The occupational status of parents as well as of children over fifteen years of age is given for the city families studied.

The study is concluded with an analysis of the foods consumed by city and farm families in Virginia by Dr. Edith Hawley of the Bureau of Home Economics of the United States Department of Agriculture. This analysis gives in detail the average amounts of foods consumed per man per year by each group of families, and the amount of energy, protein, calcium, phosphorus and iron furnished per man per day by the diet of each group. In calculating the nutritive value of the diet, size of family was measured according to the Hawley energy and protein-mineral scales. The standard used in measuring good nutrition is as follows: 3300 calories, 74 grains of protein, 0.75 grams of calcium, 1.45 grams of phosphorus, and 0.0165 gram of iron per man per day. The economy of the different diets is also measured by comparing the distribution of energy among the various food groups in the diets studied with the distribution recommended by C. L. Hunt in United States Department of Agriculture, Farmers' Bulletin 1313.

Hawley, E.

1926. Average quantity, cost and nutritive value of food consumed by farm families. U.S. Dept. Agr., Bur. Home Econ. Prelim. Rpt., 29 p.
(Mimeographed)

During the year 1923, a survey was made among 1331 farm families in Kansas, Kentucky, Missouri and Ohio by the Bureau of Agricultural Economics and of Home Economics of the United States Department of Agriculture; and schedules were obtained comprising data on all items of family living for the year just previous to the taking of the schedules. The study in hand utilizes these 1331 records in an analysis of food habits, consumption and cost, and covers such points as the number of families reporting from each state, and the average number of persons per family; the double scale for measuring food requirements; possible sources of error in arriving at food consumption figures; food habits as indicated by the foods reported; nutritive value (amount of energy, protein, calcium, phosphorus, and iron) of the diets; and cost.

Information on the last 3 points, given for each state and for all states combined, is comprised in the following tables; a list of goods reported, with the number of families using, the consumption (quantity and cost) per family and per adult male unit, and proportion (quantity and cost) purchased; the nutritive value per adult male unit, its percentage relation to a given standard of adequacy, and the distribution of energy among specified food groups; comparison

of nutritive value and energy distribution for these 1331 farm families with the same data for (1) a group of 950 farm families studied by Funk (United States Department of Agriculture Bul. 410) and (2) about 12,000 workmen's families throughout the country (United States Bureau of Labor Statistics Bul. 357); average yearly value of the food consumed per family, and its relation to the average value of family living; average yearly value of the food consumed per adult male unit, and its distribution among the major food groups.

Hawthorne, E. W.

1925. The family living from the farm. U.S. Dept. Agr. Bul. 1338, 30 p., illus.

Information obtained in farm business surveys made by the United States Department of Agriculture and the state agricultural colleges and experiment stations, is utilized in this bulletin for the purpose of showing the significance of the family living furnished by the farm (1) in relation to cost of living of farm families, to farm receipts, and to farm, labor and family income, (2) in relation to size of farm and size of family, and (3) in comparison with the cash returns from the farm business in times of agricultural depression and prosperity. The records here assembled, comprising 30 localities in 21 states, number 7738, and represent varying types of crops, farming and marketing conditions, as well as a period of general prosperity among farmers (1918-19), and a period of general depression (1921-22). Data is presented as follows: value of family living from the farm in general; localities studied, with uses of land, crop yields, and principal receipts for farm business; the family living from the farm for the 7738 families studied, showing for specified localities, the number of families reporting, the date of reporting, the average number of adult male units per family, the average yearly value per family of farm furnished food, with quantities and value of 10 specified foods, the quantity and yearly value per family of wood furnished, the yearly value per family of house rent, the yearly value per family and per adult male unit of all items of family living furnished by the farm; the general economic situation of the 7738 families as indicated by farm acreage, capital, receipts, expenses, farm income, labor income, farmer's labor, unpaid family labor, value of the family living derived from the farm, and family income; the average value of family living from the farm as related to acreage, size of family, farm receipts, farm income; the proportion of tenants to owners, and average size of farms operated by both.

There is also given a list of publications relative to farm organization and management, and to the value of family living furnished by farms in the localities included in this study.

Johnson, O. E.

1924. Costs of family living on the farm. Missouri Agr. Expt. Sta. Bul. 213, 20 p., illus.

This investigation was undertaken by the Agricultural Experiment Station of the University of Missouri for the purpose of determining the annual cost of the farm home, in money and in labor. Financial records were obtained from 30 families for different years in the period from 1912 to 1922, and labor records from eight housewives from 1912 to 1915. Average farm labor income and average money cost of family living are compared with a price index for farm products for each year of the period covered. Average money costs for the entire period per family and per "person" are presented under the following headings: Groceries, meats, clothing, household supplies and repairs, school supplies, doctor, dentist and medicines, fuel, hired labor and their board, life insurance, amusements, travel and club dues, benevolence, personal, tobacco, candy, etc. and miscellaneous. A money value is assigned to products furnished by the farm and to the use of the house. The number of "persons" per family was calculated by taking all individuals over ten years of age as 1.0, and all individuals less than ten years of age as 0.5. Average length of the housewife's work day in eight farm homes is presented for each month of the year, and the average for all months is divided between meals, care of house, care of children, laundry, sewing, garden, poultry, dairy, marketing, personal, recreation, canning and preserving, outside and miscellaneous. The average number of hours in different months devoted to maintenance are compared with those devoted to "productive" work, and the number of hours indoors with the number outdoors. The results of the time records of rural housewives are compared with one record from a city housewife.

Kirkpatrick, E.L.

1923. The standards of life in a typical section of diversified farming. N.Y. Agr. Col. (Cornell) Agr. Expt. Sta. Bul. 423, 133 p., illus.

The material for this study was obtained by a survey made among farmers of New York state -- the farm business data was obtained between April 1, 1918 and March 31, 1919, by the Department of Agricultural Economics and Farm Management, of Cornell University; and the family and household data between September 1, 1920 and August 31, 1921, by the Department of Rural Social Organization of Cornell University, and the Bureau of Agricultural Economics and Office of Home Economics, United States Department of Agriculture. Of the 410 records taken in Livingston county during the second survey, 402 (295 owners, 107 tenants) are here used in a consideration of what factors, material and non-material, constitute the standard of life, and the proportional part these factors play, and their interrelation with each other, in the quality of living.

(This bulletin contains the data to be found in the same author's publication, appearing as Bulletin 1314 of the United States Department of Agriculture.)

The study may be divided into four sections, (1) descriptive of general living conditions, (2) dealing with the distribution of expenditures, (3) the factors that constitute the standard of life, and those pertaining to the farm business, tabulated so as to develop their significance in the whole, and their relation to each other, and (4) the mathematical degree of relationship between these factors, as evidenced by co-efficients of correlation.

Detailed information is found in the first section on the location and character of the area studied; the types of tenure and the number of persons comprising each type; the family and household composition, with age and extent of education of members; number of cases of minor and of serious illness, with average duration, and number, average age, and family relationships of those chronically disabled; the number of farms having orchards, shade trees, shrubs, lawns, and the number of houses having specified characteristics, conveniences, and items of household equipment generally regarded as luxuries; the average number of rooms per capita and the average value of house per family, for families of various sizes; comparison of home environment, as exemplified in modern equipment and comforts, of these Livingston county families with 142 farm families in Blackhawk county, and 85 farm families in Clay county, Iowa.

The section on distribution presents first a table of percentage distribution of family expenditures among the main items of family living, as formulated by Engel, and as developed for American workmen, with a brief scrutiny also of some important American studies. For the 402 Livingston families, data is offered as follows: average yearly value of food consumed, of fuel and light used, with per cent of each furnished by the farm, and average cost of rent; summary of value of family living (showing values for purchased and furnished goods separately) itemized as food, clothing, rent, fuel and light, operating expenses, health, advancement, personal expenditures, and incidentals; percentage relation of values of food, clothing, rent, fuel and light, and all other items, to the total value of family living. Comparison is also made, in point of time and locality both, with the results of other specified studies. The cost-consumption-unit (c.c.u.) is discussed as a method of reducing to a comparable basis data from families of different composition; scales are given for determining the c.c.u. for food, clothing, rent, fuel and light, operating expenses, health, advancement, personal expenses, and incidentals; the yearly expenditure per c.c.u. for each of the foregoing items is given for families having specified numbers of children; and the per cent of total expenditure, per family and per c.c.u. assignable to each of the items, food, clothing, rent, fuel and light, and all other expenses.

The section dealing with factors of business, home and family living offers a tentative list of such factors with their relative values in determining the standard of life, and shows the efficiency of such a scale of values, as exemplified in the results it gives when used with the 402 Livingston county families. Specific tabulations are as follows: comparison of the farm home (value of house

and value of farm) with the factors of farm business, acres per farm, total capital per farm, work units, crop index, per cent of receipts from crops, per cent of indebtedness on operators capital, income from operators capital and labor, labor income; relation of size of farm business (classified by specific numbers of acres operated, specific amounts of capital invested, and specific numbers of work units) to income from operator's capital and labor, to labor income, to expenditure, all purposes, per c.c.u., to per cent of expenditure for advancement, per c.c.u., to average expenditure on social values and on total values, per family; relation of average crop index, and of average percentage of receipts from crops, to average social values and to average total values per family; relation of percentage of indebtedness to average expenditure, all purposes, per c.c.u., to average per cent of expenditure for advancement, per c.c.u., to average of social values and of total values, per family; relation of tenure to average social and to average total values per family; relation of value of house, value of furnishings, expenditure for church (all classified by specified value groups), newspapers and magazines (classified by specified numbers), education of parents (classified by highest grade reached), to average expenditure, all purposes, per c.c.u., to per cent expended for advancement, per c.c.u. to average social values and to average total values per family; relation of education of parents, for 128 families only, to average expenditure, all purposes, per c.c.u., to per cent expended for advancement, per c.c.u., to average social values and to average total values per family, to average value of furniture per family, to average value of house, to average acres per farm, to total capital per farm, and to work units per farm; relation of education of children, for three selected groups of families, to average expenditure for church and to crop index per farm, in addition to the factors enumerated just above; relation of length of work day (by specified number of hours), of expenditure for all purposes, and of per cent expended for advancement, to average social values and to average total values per family; average of specified factors for 25 owners and 25 tenants ranking highest, for 25 owners and 25 tenants ranking lowest, for all owners and for all tenants; highest and lowest expenditure per c.c.u., highest and lowest averages for social and for total values per family.

Coefficients of correlation are given for the following combinations; income from owner's capital and labor, labor income, expenditures for all purposes, per c.c.u., percentage of expenditures for advancement, per c.c.u., social values per family, and total values per family, each correlated with acres per farm, total capital per farm, and work units per farm; crop index per farm, and percentage of receipts from crops per farm, each correlated with social values per family and total values per family; average expenditure for all purposes, per c.c.u., and percentage of expenditure for advancement, per c.c.u., each correlated with value of house per family, value of furniture per family, and social values per family; social values per family and total values per family, each correlated with value of house per family, value of furniture per family, and expenditure for church, per family.

Copies are given of the schedule forms upon which information was obtained, and a bibliography and list of references cited is also supplied.

Kirkpatrick, F.L.

1926. Average expenditures for household furnishings and equipment purchased by farm families. U.S. Dept. Agr., Bur. Agr. Econ. Prelim. Rpt., 14 p. (Mimeographed)

The material presented in this bulletin is part of a larger study, done in cooperation with the Bureau of Home Economics and dealing with cost of living data for about 4000 families as obtained in surveys that were made during the summers of 1923 and 1924 and cover the year just previous to the taking of the schedule. In this report there are used records of 368 Kansas families, 370 Kentucky families, 178 Missouri families and 383 Ohio families -- a total of 1299 records representing 872 farm owners, 388 tenants and 39 hired men.

The term "household furnishings and equipment" as used in this study, comprises the following items: canning equipment, brooms, brushes, vacuum cleaners, bedding, curtains and portieres, furniture, linoleums, rugs, other floor coverings, household linens, lamps, musical instruments, pictures and ornaments, tableware, irons, tubs, washing machines, wringers, laundry equipment not elsewhere specified, sewing machines, dress forms, cutting tables, electrical appliances, portable gas engines, stoves, trunks and suitcases, and refrigerators and miscellaneous items.

All figures are on a yearly basis and are given for each of the 4 states, for the 4 states combined and for tenure groups as represented by (1) owners and (2) tenants and hired men. For each item of goods used, as given above, the following information is available: number and per cent of families purchasing, average expenditure per family and per family purchasing; a summary by states and tenure groups gives the average number of persons in household and in family, the average value of all furnishings and equipment purchased, the average value of all family living, the average value of family living purchased, and the percentage relation of the average value of furnishings and equipment to the value of family living purchased and to the total value of family living; a summary of all 1299 families classified according to total value of family living gives in addition to the factors listed just above, the number of rooms per house and per person.

Kirkpatrick, E.L.

1926 The average quantities and values of fuel and other household supplies used by farm families. U.S. Dept. Agr., Bur. Agr. Econ. Prelim. Rpt., 13 p. (Mimeographed).

The material presented in this bulletin is part of a larger study, done in cooperation with the Bureau of Home Economics and dealing with standards of living in about 3000 farm homes. The records were assembled during surveys taken in the summers of 1923 and 1924, and covering the year just previous to the taking of the schedules; data used here are for 1337 typical farm homes (898 owners, 400 tenants and 39 hired men) located in Kansas (406), Kentucky (370), Missouri (178) and Ohio (383).

Fuel as here enumerated includes wood, coal, kerosene, gasoline, electricity, matches, and "other fuel", purchased, and wood furnished by the farm and evaluated at the prices of cord wood ready for household use; "other fuel" comprises acetylene plant supplies, and, in a few cases, gas for lighting purposes; household supplies other than fuel include laundry and toilet soap, cleaning powders, lye, laundry starch and bluing.

All figures are on a yearly basis and are given for each of the 4 states, for the four states combined, and for tenure groups as represented by (1) owners and (2) tenants and hired men. For each item of goods used, as given above, the following information is available: unit of measure, number and per cent of families reporting, average amount and value per family and per family reporting, average value per unit; summaries give the average value of all fuel consumed and of furnished and purchased fuel, average value of all household supplies used, the average number of persons in household and in family, average value of all farm living, average value of family living purchased, proportion that the average value of all fuel, the average value of household supplies and the average value of fuel and household supplies combined is to the average value of all family living.

Kirkpatrick, F.L.

1926. The Farmer's standard of living. U.S. Dept. Agr. Bul. 1466, 63 p. illus.

This report represents the results of a number of separate studies carried on by the United States Department of Agriculture in cooperation with 12 colleges or universities, from 1922 to 1924. Schedules on family expenditures and on the goods produced by the family for home use were obtained from 2,826 white farm families in eleven states, New Hampshire, Vermont, Massachusetts, Connecticut, Kentucky, South Carolina, Alabama, Missouri, Kansas, Iowa and Ohio. The money value of home produced goods utilized during the year was computed, and figures are presented by states on the average value of all goods used, subdivided under the following headings; house rent furnished by the farm, food, operation goods, fuel, furniture and furnishings, clothing, maintenance of health, advancement, personal goods, life and health insurance, and unclassified. Figures on food and fuel are subdivided to give value of goods furnished by the farm and of goods purchased. The following material is presented in terms of averages for three different geographic regions; data on cost of clothing for persons of different age and sex; extent of modern plumbing, heating and lighting in the farm homes surveyed; details as to expenditures for operation, advancement and personal goods. Figures are presented for 1,662 farm families on the distribution of the total value of family living for families of varying size with children of different ages. The relationship of the distribution of the total value of family living is given to the following factors; age of homemaker, length of homemaker's work day, schooling of farm operator and homemaker, vacations taken by homemaker, number of acres per farm, acres operated per farm, and in the case of owners, number of years operator had been farm owner, mortgage indebtedness, and income other than that from farm business.

Kirkpatrick, E. L.

1926 Housing conditions among 947 white farm families of selected localities of Texas. U.S. Dept. Agr., Bur. Agr. Econ. Prelim. Rpt., 19 p. (Mimeographed)

A housing investigation in Texas was undertaken by the Bureau of Agricultural Economics of the United States Department of Agriculture in cooperation with the Agricultural and Mechanical College of Texas. Data were gathered by the schedule method in regard to 947 farm houses in nine different counties, as depicting housing conditions in the year ending June 30, 1924. The information given is classified under the following headings: size and age composition of families studied; length of residence in houses occupied, age of house, number of rooms in houses, height and areas of houses, screened and unscreened porches, window area, heating systems, plumbing facilities, exterior and interior finish, value of house, source of water supply, distance of water supply from house, distance of water supply from privy, kinds of toilet facilities. Frequency distributions are given for each of the factors just listed, separating the figures for owner and tenant families, and in addition seven tables at the end of the report show for the 947 houses, the relationship between age of house, number of persons in the household, value of house, number of rooms, floor area, cubic feet of space, and window area per house.

Kirkpatrick, E.L.

1928. Annual family living in selected farm homes of North Dakota. U.S. Dept. Agr., Bur. Agr. Econ., Prelim. Rpt. 17 p. (Mimeographed)

Sixty-five farm management cost accounts kept by fifty-six families covering variously the calendar years 1923, 1924 and 1925 were collected in cooperation with the North Dakota Agricultural College and comprise the material of this report. Tables show for each individual account gross farm receipts, total farm operating costs, excess farm receipts, inventory change, farm income, purchased family living, change in capital or accumulated savings; also the following figures on goods purchased for the family, money value of all goods purchased, of food, clothing, furnishings and equipment, and of expenditures for health. A summary for the 65 accounts divides total value of family living and value of goods purchased among the following groups: food, clothing, rent, fuel, operation goods except fuel, furnishings and equipment, maintenance of health, advancement, personal, insurance, and unclassified.

Kirkpatrick, E.L. and Hawthorne, F.W.
 1928. Sources and uses of income among 300 farm families of Vinton, Jackson
 and Meigs Counties, Ohio, 1926. U.S. Dept. Agr., Bur. Agr. Econ.
 Prelim. Rot., 29 p. (Multigraphed)

This study was undertaken by the Bureau of Agricultural Economics in cooperation with the Ohio Agricultural Experiment Station and Ohio State University to learn of conditions of farming and of family living in a region of low incomes and expenditures, to establish bases for programs of improvement of farming and family living, and to canvass the questions of whether there is other employment of farm people and other uses of land which will insure larger benefits to those concerned and to the State.

The report shows the sources and uses of income among 300 farm families in three localities drained by the Ohio river and its tributaries. Data were obtained by the survey method, by two groups of field workers; one group obtained information from the farm operator on the amount and source of income, and on the farm expenses; the other obtained information from the homemaker on the uses of income for family living and on goods furnished the family by the farm.

Average amounts and sources of total farm income and distribution of expenditures are given by cash income groups. Farm business summaries give averages for the three hundred farms and for four groups of farms selected because of differences in location and management. The following items are presented in each of the four summaries: size of farm, capital, receipts, expenses, farm income, interest on capital at 5%, labor income, return from farmer's labor, percentage return to capital, and value of family living from the farm.

Average total value of family living is given under the following headings: goods furnished by the farm, goods purchased, food furnished by the farm, food purchased, clothing, rent (furnished by farm), furniture and furnishings, operation goods furnished by the farm, operation goods purchased, maintenance of health, advancement goods, personal goods, life and health insurance, unclassified. Percentage distribution of total value of family living among these different groups is given according to value of living and according to cash income. The same grouping is used in giving percentage distribution of average value of the various items family living according to number of children in the family.

Average distribution of value of living by 25 families whose standards were rated highest by the field workers is also presented under these headings along with certain averages on the farm business of these 25 families.

Cost of clothing for individuals of both sexes is given in eight different age groups. Average length of work day and average amount of time spent in reading, resting, and recreation, is given for all operators and all homemakers. Figures on average age of husbands and wives, and of sons and daughters at home; number of children born to these families but dying before the study was made; place of residence; occupation of sons away from home; education of sons, daughters at home, and of those who had left home, appear in a final section of the main report.

An appendix gives detailed figures in four cash income groups in sub-groups classified under the following headings: uses of land, yield per acre, livestock, months of labor, capital, receipts, crop sales, farm expenses, farm income, labor income, percentage return to capital, farmers' labor and management, family living from the farm (food, fuel, and rent), food purchased, furnish and equipment, operation goods purchased, transportation, health goods, advancement goods, personal goods, life and health insurance.

Kirkpatrick, E. L., and Hoverstad, A. T.

1927. Family living in 25 farm homes of Askov, Pine County, Minnesota, for the year ending December 31, 1925. U.S. Dept. Agr., Bur. Agr. Econ. Prelim. Rot., 16 p. (Mimeographed.)

This study was made in cooperation with the Department of Agriculture of the University of Minnesota, among 25 Danish farmers, engaged chiefly in dairying, and located in the vicinity of Askov, Pine County, Minnesota; for the year ending December 31, 1925, these families kept careful and complete accounts of farm and household receipts and expenditures, and these records are here analyzed to show uses to which the farm family income was put, and kinds of goods acquired and consumed.

The report comprises some tables, and discussion of location; type of farming; financial condition as evidenced by investments exclusive of operating expenses; classification adopted to describe goods used; the distribution of the total family living among the various items, as an index to the standard of living; individual items of the family living of the farm families here studied. The tables present the following data, all on a yearly basis for each family; number of persons; total family income; excess receipts from farming; household and personal receipts; value of family living purchased, divided among food, clothing, furnishings and equipment, health, and all other items; total value of goods furnished; total value of all goods used, divided among food (furnished, purchased and total value), clothing, rent, and all other items; in a summary of the 25 families, average amounts received from specified sources, average amounts expended for total family living and for accumulated savings; in a summary of the 25 families and of 2386 farm families, in eleven states, studied in 1922-24, the average family size, the total value per family of all goods consumed, the average value and percentage of all goods purchased, and of goods furnished by the farm, and the percentage distribution of total family living among the items, food, clothing, rent, fuel, operating expenses, furniture and furnishings, health, advancement, personal, insurance, and all other items not specified; a second comparison among these two groups of farm families, classified according to value of family living, shows the number of families, average size, average value of family living, and percentage which was expended for food, clothing, rent, and all other items.

Kirkpatrick, E.L. and Sanders, J.T.

1925. The cost of living among colored farm families of selected localities of Kentucky, Tennessee and Texas. U.S. Dept. Agr., Bur. Agr. Econ. Prelim. Rot., 13 p. (Mimeographed)

This study was undertaken as a cooperative enterprise between the Bureau of Agricultural Economics of the United States Department of Agriculture and the State Colleges of Agriculture in Kentucky and Tennessee. The material presented in the report was obtained by the schedule method and is tabulated as depicting living conditions in the year ending January 1, 1920. All colored families having an adult male acting as farm operator and as adult female acting as homemaker within the localities chosen were visited. One hundred fifty-four usable schedules were obtained, 11 from Kentucky, 126 from Tennessee and 17 from Texas. Seventy-two of the families were classed as croppers, 47 as tenants and 35 as owners. In each table comparative data are given for 861 white farm families in the localities studied. Average size of family and size of household, and average ages of husbands, wives, sons and daughters are given by land tenure. Total value of family living, separating value of goods purchased from value of goods furnished by the farm is given for all families, and for owner, tenant and cropper families separately, under the following headings, food, clothing, rent, furnishings, operating, health, advancements, personal, insurance, and unclassified. Average number of rooms per house and average value of furniture are also given by tenure. A distribution by total value of family living gives number of families in each value of living group, average size of family and of household, average value of family living and percentage comprised by food, clothing, rent, furniture and furnishings, operating, expenses, maintenance of health, advancement, personal, life and health insurance, and unclassified, and proportion of total living furnished by the farm.

Kirkpatrick, E.L., and Sanders, J.T.

1926. The relation between the ability to pay and the standard of living among farmers. U.S. Dept. Agr. Bul. 1382, 32 p.

This study was done in cooperation with the Oklahoma Agricultural and Mechanical College, for the purpose of determining the relation between the standard of living and the ability to pay, as a step toward solving the larger problem of the relationship between economic status and standard of living. The report is based upon information obtained by field agents for the year ending December 31, 1919, from 861 white farm families located in Kentucky, Tennessee and Texas, and engaged in raising cotton, tobacco, or livestock, or in diversified farming. It comprises the following data: measurement of families by cost-consumption scales (adapted to each class of goods consumed) to reduce them to a comparable basis; average yearly value of family living, for different tenure groups, separated into food, clothing, rent, furniture and furnishings, operating expenses, health, advancement, personal expenditures, insurance, and unclassified items; percentage distribution of expenditure among the classes of

goods just enumerated, for these 861 families and for farm and city families previously studied; significance of "advancement" expenditures as an index to the standard of living; relation of other specified factors to the standard of living.

Conclusions are drawn to the general effect that economic status, standard of living and ability to pay, all react upon each other.

Kyrk, H.

1926. Cost of living on Iowa farms Pt. II, Household Expenditures, Iowa Agr. Exp. Sta. Bul. 237, p. 58-79

In the three years 1922, 1923 and 1924 the Home Management Specialist in the Extension Service of Iowa State College persuaded 50 farm women to keep records of the cash expenditures of their families in order to improve the management of their finances. This report utilizes fourteen of these account books, kept by ten families. Data is given on average total expenditures with separate figures on average expenditures for food, clothing, furnishings and equipment, fuel and light, household supplies, personal supplies, services, telephone, automobile, other operating expenses, health, organization dues, books and newspapers, formal education, benevolence, gifts, travel, personal allowances, tobacco and cigars, and all other recreation.

Lively, C.F.

1925 Cost of family living on the farm. Report of cost of living studies on 26 Ohio farm families. April 1, 1924 to April 1, 1925. n.p. (Mimeographed)

This study, conducted under the auspices of the Department of Rural Economics of the Ohio State University, purposes to show the cost of family living on the farm as expressed in terms of money spent and value of farm products used from the home farm, and distribution of the value of family living. Information was obtained from 26 families located in specified sections of Ohio, who kept under the supervision of home demonstration agents, detailed household accounts for cash expended and farm products used during the 12 months ending April 1, 1925.

The report comprises the following data: system of classification by which to allocate costs; methods of evaluating farm products used by the family; percentage distribution of total value of family living and of total cash expenditure, among the main items of the budget; seasonal distribution of the cash expenditure; average size of family, and quantities of farm products used;

total value of living for each family, showing value of purchased and furnished goods, and percentage which each is of total value of family living, for the items food (divided into specified groups), clothing, operating expenses, house furnishings, education, recreation, health, organization dues, church, life insurance, and unclassified items; for specified commodities furnished by the farm, the total quantity used, the number of families using, the maximum, minimum and average quantities used, the total value, the average value per family, the total value at Columbus (Ohio) retail prices, and the percentage difference between farm and Columbus prices.

Muse, M., and Brooks, C.P.

1929. Comparative study of data on farm household expenditures obtained by household accounts and by a survey. Vt. Agr. Exp. Sta. Bul. 294, 32 p., illus.

Thirteen farm families of Western and North-Central Vermont during the year ending October 1927 cooperated in supplying data for a comparison of the relative accuracy of the account and survey methods of obtaining data on farm family living. The information comprises summary figures on the money value of all goods and services consumed, goods and services produced by the farm, goods and services purchased, savings, clothes, furnishings, rent, operating goods, produced by the farm and purchased, health, education, recreation, personal, church and charity, other gifts, automobile and miscellaneous; and detailed data on the money value of food supplied by the farm and food purchased. The method employed was to have accounts kept regularly by the families under study, and schedules made out, without referring to the "account" records, at the close of the year.

Peck, F. W.

1916 The cost of living on Minnesota farms. Minn. Univ. Agr. Expt. Sta.
 Bul. 162, 31 p., illus.

This study is based upon data obtained by special agents from 22 farmers in 3 specified localities in Minnesota covering periods of from 5 to 8 years; this data is offered as a basis (1) for estimating annual expenditures on Minnesota farms, (2) for determining wages for farm help and for fixing the total cost of man labor, and (3) for arriving at a better understanding of gross income in farming as a business. The term "cost of living", as used in this report, means only the items food, labor, equipment, fuel and rent (whether furnished or purchased); "adult equivalents", as a basis of measuring family size were arrived at in the manner here described: "Children old enough to perform regular farm labor equivalent to regular hired labor were considered as adults. Others were estimated at certain proportions of adults according to age, size, work performed, and amount of food consumed, according to the judgment of the route agent."

The report comprises the following information, given separately for each specified locality: average rates per hour of man and horse labor, and average number of hours and cost of specified types of labor per family, for the period 1905-1914; yearly cost per person, 1905 to 1914 inclusive, of the items food, labor, equipment, fuel and rent; family size in adult-equivalents for each year 1905 to 1914 inclusive; amounts and values of specified items of farm produce consumed yearly per person; for ten specified commodities, local prices for each year 1905 to 1912 inclusive; the total yearly "cost of living", the cost of the items, purchased food, farm produce, labor, equipment, fuel and rent, and the percentage relation between each of the foregoing items and the "cost of living", all calculated on a per family and a per person basis; the cash expenditure yearly and monthly, per family and per person, for the items, food, fuel and labor; food costs analyzed according to specific groups of foods, and on a monthly, a daily, a per meal and a per person basis; food costs, per person compared with rent, equipment and fuel costs per person; cash expenditure and proportionate value of yearly consumption per family, in the period 1905-1914, for purchased food, farm livestock products and farm vegetables.

Ohio Bureau of Labor Statistics
1894 Seventeenth annual report (1893):9-841

A compilation of farm statistics was undertaken by the Bureau as their most important project for 1893, for the purpose of supplying "real information for the wide misconception and lack of technical knowledge which prevails not only in the minds of the outside public, but among the farmers themselves. Logical reasons cannot be given why agriculture should not be made the subject of the same official inquiry that is applied to manufacturing, mining, common laboring and other pursuits." The study covers 7 1/2% of the total acreage of the state, including 61 counties selected so as to represent the entire farming population. The chief objects were to ascertain the returns realized by the farmer on the capital invested, and on his labor, separately. Questionnaires were sent to 20,000 farmers throughout the state; the list was made up by county auditors who selected 27 farmers for each township, chosen to represent four different classifications by size of farms, fifteen thousand questionnaires were returned; only a part were satisfactorily filled out for compilation of data. Data on size of farms, taxes, cash value, and value of buildings and of machinery is given by townships and summary by counties. Farm mortgages are summarized for each county, in terms of acreage mortgaged, value of farms and amount of indebtedness, and purposes for which the mortgages were incurred. Classification by purpose is subdivided as follows: purchase money, including incumbrances created to buy other land; buildings, improvements and repairs; purchases of agricultural implements, machinery and stock; investments in business and other than farming; personal obligations and expenses; sickness; other purposes. The study of mortgages covers 290,379 acres of mortgaged land and represents 70 per cent of the mortgage indebtedness for the total area studied. Cost of living for 7,897 families is given, for each family listed under its township, giving the following data: number of acres in farm, whether or not mortgaged, acres under cultivation, number of persons in family; total amount paid from April 1, 1892 to April 1, 1893, for (1) groceries; (2) shoes and clothing; (3) furniture and household goods; amount of savings during this period. This data is totalled by counties. Data on farm labor is presented as follows: Wage rates for male and female farm labor, in winter, and summer and harvest, with and without board, and total amount paid hired help from April 1, 1892 to April 1, 1893, number of families living and working on farms besides the family of the chief operator; and wages and privileges allowed such families given by townships, for each farmer employing help, together with size of farm. An acreage of 1,292,955 acres is covered in this section of the report, or 90% of the total acreage studies.

Family and educational data is presented from 9,659 families, covering 51,717 persons for each county, giving number of families, total number of persons in the families, number of boys and number of each sex attending common school during term; number of each sex attending high school or college. Individual records are not shown. A separate table gives occupations engaged in other than farming, by 3,758 farmers' sons. 95 occupations are listed and the number in each is given. Capital invested in farm machinery is given by number of each kind (mowers, etc.) valuation, and acreage, for each county. Selling prices of 27 articles of food and of soap, cotton, coal and iron are listed for Cincinnati, Columbus and Cleveland from 1825 to 1893 by highest, lowest and average for each year.

Bankin, J. O.

1927 Cost of feeding the Nebraska farm family. Nebr. Agr. Expt. Sta. Bul. 219. 36 p., illus.

The Department of Rural Economics, University of Nebraska cooperated with the University's Agricultural Experiment Station and with the Bureau of Agricultural Economics, U.S. Department of Agriculture in this study. It covers the 12-month period ending May 30, 1924, and comprises schedules from 342 farm families located in four "typical" areas in different parts of Nebraska. The purpose of the survey was to determine kind, quantities and costs of food consumed by Nebraska farm families and extent to which food supply is farm-furnished; the published results give information on quantities of food, with some material on percentage distribution of the money value of food consumed.

Taylor, C. C. and Zimmerman, C. C.

1923 Economic and Social conditions of North Carolina farmers. 87 p. (North Carolina, Dept. of Agr. Tenancy Commission.)

This bulletin presents a study of the causes and effects of farm tenancy in North Carolina, begun because of the concern of the State Board of Agriculture over the high percentage of tenancy in the State. The study was made under the direction of a committee appointed by the Board. The tenants and croppers studied are almost wholly growers of cotton and tobacco.

The area surveyed included 1,014 farm families. Each family was interviewed personally and asked more than 700 questions about farm production, farm ownership and farm life.

All the material presented in the report is tabulated in terms of averages for all the families surveyed and for the families in the three different counties studied, one on the Coast Plain, one in the Piedmont, and one in the mountains giving in each table separate averages for Operators-Landlords, Owner-Operators, Tenants and Croppers, and separate averages for white and black families for each tenure class. The report gives average money values of family living raised and purchased, average amounts of different foods raised per family, annual cash income per family and per individual, use of short time and intermediate credit, average wealth and equity per family, tenure status of the father or present operator and per cent of present operators having a different status from their fathers. The data in regard to the homes in which these families live give averages for the following items; number of rooms, number of persons per room, number of persons per bed room, number per bed, number homes with separate sitting rooms, dining rooms and parlors, with bath tubs, indoor toilets, running water, clothes closets, heat other than fire place, lights other than lamps, washing machines, vacuum cleaners, kitchen sinks, telephones, refrigerators, and rugs. Material on

windows gives per cent with no screens in homes, per cent partly screened, per cent with broken window lights, and average number of window frames per home. Tables on wall-treatment, porches, basements and sleeping porches conclude the description of homes.

The material presented on health and sanitation, gives use of doctor, expenditures for doctors fees, drugs and patent medicines, attendance at births, average still births per family, per cent vaccinated for small pox and inoculated for typhoid, per cent of wells open at top, depth of wells, pollution of wells, number, kind and condition of privies, and care of garbage and dishwater.

The section on education gives material on number of parents who can read and write, number having attended school, length of time having attended school, per cent of children six to fifteen who can read and write, per cent of families who take different kinds of papers and magazines, average number of books in home, per cent who borrow books, and kinds of books.

Connection with and attendance at various kinds of religious institutions is given in detail. Data on recreation includes average times each person participated in community recreation in the preceding year, and number of kinds of recreation per person, per cent of families which participate in no form of community recreation; per cent of homes with musical instruments of different kinds, per cent having automobiles, per cent having buggies, per cent having no road vehicle for family conveyance, per cent of parents members of some community organization and average number of visits per family per year.

Thaden, J. F.

1928 Standard of living on Iowa Farms. Iowa Agr. Expt. Sta. Bul. 238.
(Revised) p. (82-136. illus.)

This study was made among 451 farm families -- 212 owners and 239 tenants -- in certain areas of Boone, Story and Sac counties, Iowa, during the year ending July 1, 1923. "All families within the areas surveyed were interviewed and their expenditures and activities were listed and analyzed in order to note the forces and factors that control or influence living on the farm." Families were reduced to a comparable basis by use of household size indexes. The scales used in computing these household size indexes were developed from the material gathered in this survey to represent the relative money values of food, clothing, rent, furnishings and equipment, operating, health, advancement, personal insurance and unclassified goods consumed by persons of different age and sex. Average value of family living of all 451 families, classified by increase in number of children in family is given per family and per "cost-consumption unit", for all the items listed above. Families are grouped according to total value of family living per cost consumption unit, and the following material is presented for each group: number of families, average size of families and of households, average money value per cost consumption unit, percentage distribution of money value of goods consumed among the items listed above, percentage of food and fuel furnished by farm, length of work day, average value of furniture and average size of farm.

Bringing out the point that expenditures for advancement, mark a family's progress forward from a mere subsistence level, and that educational, economic, social and religious factors are closely involved, tables are presented showing for all families, and for owners and tenants separately, the average total value of family living per cost-consumption unit, and the per cent devoted to advancement. Then the families are classified according to each of the following circumstances; number of acres, value of farm; value of house, extent of education of operator and homemaker, and of children; number of volumes in home library, and types of reading matter; membership in social organizations and amount of organization dues; attendance at church and contributions to church organizations; vacations; extent of city residence of operator and homemaker; extent to which farm help is employed. According to an ascending scale of percentage of total value of family living devoted to advancement, data is offered as follows; number of families; age of operator; extent of operator's schooling; extent of schooling of children 16 years or older; size of family; length of work day; size of farm (acres); value of furnishings; average total value of family living per family and per cost-consumption unit; percentage of total value of family living represented by each of the items, food, clothing, rent, furnishings, operating expense, health, advancement, personal, and insurance; per cent of food furnished by farm; per cent of fuel furnished by farm; per cent of total living furnished by farm.

A short bibliography is appended.

Von Tungelin, G.H., Thaden, J.F., and Kirkpatrick, E.L.

1928 Cost of living on Iowa farms. Iowa Agr. Expt. Sta. Bul. 237 (revised)
62 p., illus.

This study, carried on by the Iowa State College Agricultural Experiment Station and the United States Department of Agriculture, had as its purpose the determining of actual facts on living costs of a farm family, evaluating at local market prices those items of consumption furnished by the farm; between July, 1922 and June, 1923, staff members of the Iowa Agricultural Experiment Station interviewed 472 farm families in Boone, Storey and Sac counties, each family having an adult male acting as operator and an adult female as homemaker. Information was obtained covering the 12 months preceding the taking of the schedule.

The points brought out in the discussion and the tables are as follows: nationality; household composition; educational, economic and social conditions; cost of living; and the rising standard of living as exemplified by a comparison of the results shown by Eden, Engel, Le Play, the United States Bureau of Labor reports for 1891 and 1919, the Groton, New York Study of 1919, the Livingston county, New York study of 1921, and the Iowa Study of 1923.

Tables give the following data; size of household, of family, and average age of operators, homemakers, sons, daughters; per cent of all families, and of owner and tenant families separate, taking specified types of reading matter; number and per cent of owners and tenants operating specified number of acres; per cent of all families, and of owner and tenant families separate, having nursery stock; value of home, extent of modern conveniences. Distribution of

the total cost of family living, amount and per cent, is shown for all families combined, and separately for families of owners, tenants, and hired men, for each of the succeeding items; food; clothing; rent; furnishings and equipment; fuel, auto, hired help and other operating expenses; health, advancement (formal education, reading matter, organization dues, church, benevolences, vacation and trips, and other items not specified); personal; insurance, life and health; unclassified expenditures. Distribution of the total cost of family living, amount and per cent, is shown also for owners, tenants and hired men separately, in each of the 4 districts, for the items food, clothing, rent, furnishings and equipment, operating expenses, health, advancement, personal, insurance, and unclassified items.

The average value of food and of fuel furnished by the farm is shown for families of specified sizes; the average cost of clothing, by age groups and by sex, for families of owners, tenants and hired men.

Comparison is made, for family composition, value of living furnished by the farm, amount and percentage distribution of money value among the main items of a family budget, and number and per cent of families falling within specified income groups, for New York (Livingston Co.), Missouri, Kentucky (Madison Co.), Alabama, Ohio (Delaware), Texas, Tennessee, Connecticut, Kansas, Massachusetts, and New Hampshire. Comparison is also made of average yearly value (amount and per cent) for food, clothing, rent, furnishings, fuel and light, and miscellaneous items, for 451 Iowa families and 12096 industrial families of the United States, studied in Bulletin 357 of the U.S. Bureau of Labor Statistics.

To exemplify Engel's law, the material is arranged by specified levels of total expenditure, giving number of families in each level; average size of family and of household; average total expenditure; per cent for food, clothing, rent, furnishings, and equipment; operating expenses, health, advancement, personal, insurance; per cent of food, of fuel, of total family living, furnished by the farm.

Williams, F. W. and Lockwood, J. E.

1930 An economic study of food consumed by farm and village families in Central New York. N.Y. (Cornell Univ.) Agr. Exp. Sta. Bul. 502, 52 p., illus.

An investigation of food consumption habits among farm and village families in Central New York was initiated at the Cornell University Experiment Station in the fall of 1925 at the request of the New York State College of Home Economics. The purpose of the investigation was to determine the cost of an economical but adequate diet which would conform to the food habits of families in that part of the country. The results presented are based on food consumption records kept by 106 families for the period of a month. Food purchased and food produced on the farm and consumed by the family were both recorded. Foods produced on the farm were valued in two different ways: in terms of wholesale prices to determine how much money the family would have received if the food

consumed had not been used by the family but had been sold, and in terms of retail prices to determine what these foods would have cost if the family had been obliged to purchase them at a retail store. Actual money expenditures for food and the retail value of food produced at home were added together to give figures on the retail value of all food consumed.

Each record was analyzed as to its energy, protein, calcium and iron content, in relation to the dietary needs of the household where it was made. Dietary needs were calculated on the basis of standards found in Chemistry of Food and Nutrition by H. C. Sherman, and Foundations of Nutrition by M.S. Rose.

Family size was measured in terms of energy units and in terms of adequate food cost units, computed on the basis of the data collected in this study. Average money expenditures for food and average retail value of all food consumed are presented separately for farm and for village families, and for families adequately and inadequately fed, according to the nutrition standards adopted for the study. The range of retail value of all food consumed is given for each group according to seasons, and according to differences in calorie consumption in relation to estimated calorie needs. A separate table shows the average amounts of different foods produced on the farm and consumed by adequately fed farm families with varying money expenditures for food. Another table shows for adequately fed farm families arranged according to money expenditures per energy unit per day, the following data: average money expenditures, average wholesale value of all food produced, average retail value of food produced, average retail value of all food consumed, average number of energy units per family, amounts of different foods consumed by groups of foods, calories consumed per energy unit per day, and grams of protein consumed per energy unit per day. Similar data is present for adequately fed village families.

Adequate low cost food budgets are presented for persons of differing caloric requirements, computed on the basis of the food consumption given in the 59 records showing adequate diets. Methods of payment most commonly used in buying foods are given for 60 families. Tables are presented giving the number of families recording the purchase of shortening, canned fruits and vegetables, coffee, and breakfast cereals by brand, distinguishing between families recording the purchase of nationally advertised, chain store, and other brands and those recording no brand at all.

Wisconsin Bureau of Labor, Census, and Industrial Statistics
1896 Seventh Biennial Report (1895/96): 1-135

This report presents the results of an investigation undertaken among the farming population of Wisconsin. Of over 5000 questionnaires mailed out, 549 were returned, and for each individual reporting; birthplace, marital status, number in family, number months school attendance of children, years farmed, number acres in farm, number under cultivation, value including improvements, interest paid on mortgage, products and yield, cost of production of different grains, cost of raising wool, opinion as to most profitable brand of farming, number of men employed in summer and in winter and wage rate in each season, what the pay includes (board, washing), comparative increase or decrease in farm labor wage with rate of 1 yr., 2 yr. and 3 yrs. previous; number of women employed in summer and winter and wage rate for each season; statements whether or not savings or debts were accumulated during past year, and during past five years; whether or not life and fire insurance was carried; whether or not member of grange or similar organization, and whether or not member of beneficiary organization. Whether or not any increase or decrease in cost of living during the past year, and other questions of opinion on farm problems. Summary tables are given for individual questions, and many individual answers are quoted on the general questions of cause of farm failures and on suggestions for ameliorating the condition of the farmer.

Zimmerman, C.C., and Black, J.D.

1927 How Minnesota farm family incomes are spent. Minn. Univ. Agr. Expt. Sta. Bul. 234, 49 p., illus.

This bulletin is presented as the beginning of a series of rural life studies undertaken for the purpose of obtaining information as to the quality of rural living. The authors say, "Next must come definite and concrete suggestions as to how rural living can be improved through detailed studies of the homes in which farm people live, of household comforts and conveniences, food budgets and clothing budgets, health and sanitation, forms of recreation, education and other forms of advancement. It (the program) also calls for the consideration of the way in which income is divided between current living, current farm expenses, capital investment in the farm business, savings, and advancement."

This first study is based on a survey of 357 families conducted during the fall of 1925. Investigators visited about 50 contiguous farm families in seven different counties.

Two types of schedules were used, one a short schedule giving data on family living expenditures only, and one a long schedule, giving more complete information. The investigators secured 157 long schedules and 200 short schedules. In order to show the representative character of the data, figures are presented for each county visited, on the average size of all farms and of those surveyed, and on the percentage of all farms, and of farms surveyed which are rented. One third of the cash receipts of the farmers in the communities studied came from live stock, and almost one third from grain and other crops. The following material is presented for each of seven communities: per cent of population foreign born, and per cent natives of first generation, number of families furnishing data, their average cash receipts and expenditures, number families spending in excess of current receipts, number of those with less than average receipts; maximum, minimum, and average cash receipts; distribution of average expenditures for farm, for living, for investment, for automobiles; average distribution of living expenditures for food, clothing, housing, health, advancement, and personal; average cost of dental care per family, per cent of families in which some member had dental examination during year; per cent of individuals who had dental examination during year; childbirth expenses; data on reading, including average amount spent for reading per family, per cent taking daily papers, per cent taking foreign language papers, average number of pieces of second class mail received per family, percentage that purchased books during the year, total books purchased, average size of library, percentage having no books in the home; percentage taking trips costing \$2 or more, average expenditure for travelling; advancement expenditures as follows: amount spent per family, per adult equivalent, per cent of living expenditures, per cent of total expenditures; expenditures for clothing per adult equivalent, percentage of families who purchased from mail order houses, average mail order purchases per family; average size of household in persons, and in adult equivalents, cash spent for food per adult equivalent; percentage of meat and butter consumed which was home produced, percentage of families growing orchard fruit and small fruit, average number of vegetables grown; average annual consumption of flour, sugar, sirup, coffee and tea per family, and of flour, sugar and coffee per adult equivalent; average adult consumption of meat and poultry and proportion raised at home; average amounts of dairy products, eggs and potatoes consumed per adult equivalent; farm expenditures, with sub-totals for operating expenses, insurance, taxes and cash rent, poultry purchases, machinery expense, farm building expense, farm land expense; average farm operating expense by groups; average land tax per farm owner, and per acre, per cent of expenditures of land owners for taxes; distribution of payments on investments, as follows: interest on funds borrowed, paid on farm, on life insurance, and all other.

Certain figures are given by cash receipts groups, including percentage of families having the following home improvements, sewing machine, washing machine, central heating plant, modern lighting system, home laundry, bath tub, indoor toilet, water in kitchen, drain from kitchen, percentage not always eating in kitchen, percentage of windows screened; average number vegetables per garden; average number of children in families from which operator came, average number of births in operator's families where wife was 45 years old or more, average operator's opinion as to best size family, average age at marriage of operator wives; and percentage of operators having high school education, favoring college education, county agent work, and home demonstration work.

Classification of the average housing expenditures of 157 families is given as follows: fuel and light, soap and cleansers, a total for curtains, bedding, rugs, furniture and pictures, telephone service, repairs to house, domestic help, and service equipment.

Wherever families are measured in adult male equivalents, the basis is L. Emmet Holt's table of energy requirements.

Zirmorman, C.C., and Black, J.D.

1928 Factors affecting expenditures of farm family incomes in Minnesota Univ. of Minn. Agr. Exp. Sta. Bul. 246. (31 p.), illus.

The material presented in this bulletin was gathered in the fall of 1926 from 334 farm families in six Minnesota communities. The methods used were similar to those employed in the study listed just above. The report gives data on cash expenditures and living conditions, and "an analysis of some of the factors affecting the amounts of expenditures and hence the quality of living". The types of farming represented are indicated by the sources of cash receipts. Seventy two per cent of the cash received came from sales of live stock, 21 per cent from crop sales, and 7 per cent from all other sources. Statistical tables give for each community and for all communities surveyed; average size of farm, nativity of farm operators, land tenure, sources of cash receipts in detail, average cash expenditures and cash receipts, number and per cent in each community spending at least ten per cent more than receipts of current year; average amount spent for farms, (including taxes), for all interest payments on farms, and other investments, and for total family living, sub-divided as food, clothing, household, health, advancement and personal. The reasons given by 120 families for spending at least 10 per cent more than the receipts of the current year are given in a separate table.

The analysis of factors affecting the gross distribution of expenditures gives data on the expenditures of 154 families surveyed in 1925, combined with the data from the 334 families surveyed in 1926. The analysis used shows changes in the division of cash receipts as these receipts increase, beginning with the division between expenditures for all living, farm, investment, automobile, in averages per family and per adult equivalent (again using L. Emmet Holt's tables of energy requirements as a basis for determining adult equivalents.) Figures in regard to the distribution of total farm expenditures give the average farm expenditures classed as necessary to produce incomes, and average amounts classed as reinvested in the business. Distribution of the "net spendable income" gives the division between living, automobile, interest on loans and mortgages, reinvested in business, and all other investments.

The following material in regard to family living is presented by cash receipts groups: size of family in adult equivalents, average age of operator, number of families with mother 45 years old or older, average number of births for these mothers, average living children of these mothers; average cash expenditures per family for food, clothing, fuel, light, improvements and repairs to house, cleansers, musical instruments, telephones, domestic help furniture and equipment, all household purposes, health, advancement, personal; relative increase per adult equivalent in expenditures for food, clothing, household, health, advancement and personal; average cost of food purchased per family, average assigned value of home produced food per family, and the relative increase in both purchased and home produced food per adult energy unit as cash receipts increase. All butter is included as a purchased item. Amounts were recorded of all goods produced at home, with the exception of fruits and vegetables. These were valued at average farm prices for the two year period. Fruits produced at home were omitted from the calculation. Vegetables were included by allowing \$4 per 1000 square feet of garden space.

A division of cash expenditures between average amounts spent for necessities and luxuries as cash receipts increase concludes the study of Minnesota families. Necessities are made to include "food, clothing, fuel, light, repairs to house, service equipment for home, cleansers and health expenditures." Included in luxuries are organizations, recreation, musical instruments, telephones, furniture, domestic help and personal expenditures.

A final table gives relative rates of increase of spendable incomes, and physiological and non-physiological expenditures, in changing from farm living to higher income groups for farmers and other economic groups, as shown by the study and by 35 other studies of family living.

Zimmerman, C.C.

1929 Incomes and expenditures of village and town families in Minnesota.
Minn. Univ. Agr. Expt. Sta. Bul. 253, 47 p.

The purpose of this study was to furnish a basis of comparison between the standards of living of Minnesota farm families previously studied and those among families in eleven towns and villages in the same state. Estimates of expenditures and incomes were obtained from 395 families, covering the year ending July, 1927. "Approximately half of the time (of the field workers) was spent among the poorer families of the town, and a quarter each among the medium class and the wealthier families." Average amount of income and expenditure, surplus or deficit, and sources of income, are presented per family and per adult male unit for each community and for each occupational group. Numbers of adult male units per family were computed on the basis of energy requirements as estimated by L. Emmett Holt. In the case of 198 families having deficits for the year, the causes assigned are presented.

Distribution of expenditures is given per family and per adult unit in averages for each of the eleven communities, and for each of the ten occupational groups, in regard to the following items, household (that is, a total for rent, light, fuel, operation and upkeep) food, clothing, health, other living, automobiles, investments, and total expense. The following material is given in terms of averages per family for each of eleven communities and for each of ten occupational groups: - average investments per family classified under ten different headings: expenditures for religion and charity, education reading, gifts, travel, tobacco, toilet and barber, shows and movies, other entertainment, organization dues, vacation, other miscellaneous living expenses, repairs to buildings, fuel, light, rent, music, telephone, domestic help, taxes, property insurance, operation and other household expense; and finally the circulation of daily and local papers. The following facts are presented by occupational groups only: - amounts of wealth owned; types of automobiles owned; amount of higher education among adult children; circulation of magazines, books and farm papers; amount of garden space, expenditures for medical services cost of births, size of lot, size of house and size of basement and air space, number of doors and windows and per cent screened, number of rooms and number in use, number of bed rooms and number of beds in use per 100 per sons, and type of heating and type of lighting.

Zimmerman, C.C.

1929 Incomes and expenditures of Minnesota farm and city families.
1927-28. Minn. Univ. Agr. Expt. Sta. Bul. 255, 50 p., illus.

The investigation on which this report is based was undertaken under the auspices of the Agricultural Experiment Station of the University of Minnesota for the purpose of obtaining "some measure of the standard of living of farm and city families, the factors affecting these standards of living, and an understanding of the laws or principles of consumption in a farming-industrialized society." Material on income and expenditures were gathered from 226 farm families and 252 city families, for the year 1927-28. Data on the range of cash farm receipts is presented, showing for seven different groups, numbers of families in each group, average cash receipts and expenditures, and net spendable income. The average amounts invested in different ways, spent for automobiles and spent for family living are also shown in relation to the total cash receipts of the farms.

Figures on cash expenditures for the family living are classified as to amounts spent for food, clothing, health, buildings, alterations and repairs, fuel, light, domestic help, telephone, music, other household expense, formal education, travel and vacations, religion and charity, shows, entertainment, gifts, tobacco, toilet goods and barber, reading, organizations and other miscellaneous expenditures.

For the 252 urban families studied, number of families, average size of family, average income and average expense is shown by occupational and by income groups. The following facts are tabulated by income groups only, sources of family income, distribution of average family investments, distribution of average family expenditures classified as to expenditures for food, clothing, automobile, health, repairs, taxes, rent, insurance, light and fuel, operation, music (other than music lessons), telephone, domestic help, other household expense, education, vacation and travel, church and philanthropy, shows, entertainment, toilet goods and barber, gifts, tobacco, reading, organizations, other miscellaneous expense.

Expenditures per family and per adult unit for investment and for non-physiological purposes are presented by social classes, and net accumulations of property by income and cash receipts groups for both urban and rural families. Data on size of farm and urban homes giving the average number of rooms and of bedrooms per family and per 100 adult units, the percentage of total rooms that are bedrooms and the number using different methods of heating are presented in the same way. The report concludes with material relating average expenditures for power fuel and oil to the cash receipts of the farm families, as showing the "close relationship between the mechanization of agriculture and the size of the gross cash receipts". The number of adult male equivalents in the families studied was computed on the basis of the energy requirements of each family.

Section B. Studies of Costs and Standards of Living among
Wage-earners in the United States

For supplementary bibliography see pages 105 - 112

Anthony, K.
1914 Mothers Who Must Earn. 223 p. New York

This study, under the auspices of the Russell Sage Foundation, was made on the West Side of New York City, during the summer of 1912, among mothers who had been obliged to continue or to resume regular employment outside the home after marriage. It is one of a series of studies aiming "to describe with sympathy and insight some of the real needs of a neglected quarter." The names of 307 wage-earning mothers were obtained through eighteen different social agencies; the schedule method was used with 237, while 133 cases were studied from information in the files of the social organizations helping them. Figures are presented for 370 families on nationality of parents, occupations of mothers, of fathers, both living and deceased, and of wage-earning sons and daughters, status of all living children, amount and sources of family income, and amount paid out for rent. For a limited number of cases, an intensive survey was made, covering wages, working hours, regularity of work, and its effect upon health and family life; status of the children of these families, the cost of their care during working hours, expenditures for insurance, occupations of the husbands; and the different kinds of pressure which had forced the mothers into the wage-earning class.

Beyer, W. C., Davis, R. P., and Thwing, M.
1919 Workingmen's Standard of Living in Philadelphia. 125 p.
New York.

Boston, League for Preventive Work

1917. Food supply in families of limited means. 24 p. Boston.

This study was made by six welfare agencies in Boston, members of the League, during one week of July, 1917, for the purpose of determining what percentage of income, in families of varying sizes, should be spent for food; how far income, nationality, and skill in purchasing enter into food habits and costs; and whether a family that is receiving outside aid maintains an adequate diet. The names of 200 families of whom 50 were then receiving aid, were taken at random from the files of social agencies; all of the families had children, and the average size, with boarders and lodgers included, was between six and seven persons; all 200 families filled out schedules showing food purchased during the week of the study. The points brought out in the report are as follows: classification of the families by nativity, residence, family composition and income levels; discussion of the diets as regards kind, adequacy and economy; relative expenditures for four main food groups, according to family income; percentage of income spent for food, by families of different income levels; number and percentage of families adequately fed, inadequately fed, and on the border line. The standards given in two publications of the Association for Improving the Conditions of the Poor (New York City), "Food for the Family", and "Food Allowances for Healthy Children" were used in judging the adequacy of the diets studied.

Bosworth, L. M.

1911. The Living Wage of Women workers. 90 p. Philadelphia. (Supplement to the Annals of the American Academy of Political and Social Science, May 1911.)

This study was prepared under the direction of the Department of Research, Women's Educational and Industrial Union, Boston, in an effort to gather data concerning the cost of living for working girls dependent upon their own resources. Tentatively begun in September 1906, the investigation was carried on chiefly from 1907 to 1909, and comprises information obtained from 450 women workers of Boston, representing the professions, clerical, sales, and factory work, waitresses and kitchen workers. Accounts were kept by thirty working women and material in regard to the rest was obtained from schedules. All returns were classified (1) by occupations and (2) in five wage groups; then under these two headings they were tabulated to show: average annual income and expenditure; average annual savings and debts; average annual expenditures for food, rent, clothing and laundry, health recreation, education.

The Buffalo Foundation

1926. What it cost fifty families to live for five years in Buffalo. 27 p. Buffalo.

This study was undertaken to explain the administration of the mothers' pension system in Erie County, New York, the county in which Buffalo is situated. Fifty families of widowed mothers and their children, kept records of their family expenditures from the first of 1920 to the end of 1924. Size of family is given in terms of the number of children over and under 16 years of age. The expenditures for the family nearest to the average in size are given for each of the years 1920 to 1924 for shelter, food, fuel and light, clothing and miscellaneous. And the average expenditures of the family 1920-24 are compared with average for all fifty families, 1920-24. Monthly variations for expenses in 1924 are given for the nearest to average family. The expenses of this family for food and clothing are compared with the standardized food budget; and the maximum and minimum clothing budgets adopted by the Erie County Board of Child Welfare. Sources of the total income of this family are given for each of the five years in question. Percentage distribution of the average expenditures of the fifty families among the items listed above is given by income groups for the years 1920 and 1924. In 1924 the incomes of thirty-four of these families were not sufficient to meet expenses and the average deficit is given. The occupations of the thirty mothers supplementing their family incomes by work outside the home is given, and another table presents the allowances actually granted with the larger allowances permitted by law. Final tables present the sources of the total income of the fifty families 1920-24, and the distributions of their total expenditures for the same years.

Bureau of Applied Economics, Inc.

1919. Standards of Living: a compilation of budgetary studies. 49 p. Washington.

(See under this title in Budget section.)

Byington, M. F.

1910. Homestead: the Households of a Mill Town. 292 p., illus. New York

(California Industrial Welfare Commission)

1915. First Biennial Report (1913/14): 93-98.

Chapin, R. C.

1909. The Standard of Living Among Workingmen's Families in New York City.
372 p. illus. New York.

This book includes three studies made at the request of the New York State Conference of Charities and Correction, in order to arrive at a dependable representation of the standard of living (1) absolutely, for a given time, place, and class of workers, and (2), relatively, in comparison with the standards of different times, places, and classes.

The first report, that by Professor Chapin, is a study of 391 families who lived in greater New York City in 1907. An attempt was made to have the families studied representative of every section of the city and of the most important nationalities; no dependent families were included; "attention was concentrated on families having an income of from \$500 to \$1000 a year, consisting of man, wife, and from two to four children under 16 years of age. Information was collected by means of a schedule form filled in by investigators, and is presented throughout the report by nationality groups and income levels. Data comprises occupation; sources of income; average number of persons and of energy units (Atwater scale) per family; and average expenditures, for rent, carfare, fuel and light, food, clothing, insurance, health, sundries, and all items.

Under the heading "Shelter" there is a discussion of rent as a factor in the budget, and as influenced by locality and nationality; character of accommodations; number of persons to a room; relation of lodgers to overcrowding; rent increase since 1905. Tables present average yearly rents; number and per cent of families paying specified monthly rents; number and character of rooms per family; number of families with more than 1.5 persons to a room; number and per cent of such over-crowded families reporting a surplus or deficit; comparison of per cent of total expenditure diverted to rent by families with and without lodgers.

Food is discussed as a factor in the budget: in regard to diet variations due to nationality; inadequacy of food expenditures; meals away from home; frequency of food purchase; dependence on baker; milk; ice and refrigeration; alcoholic drinks. Tables give the average yearly expenditure, and per cent which it is of total food expenditure, for the following groups: meat and fish, eggs, butter, milk, cheese; cereals; vegetables and fruit; sugar, tea, coffee, condiments; drinks at home; Average expenditure per man per day; and the number of families spending less than 22 cents per man per day, the amount needed to purchase a sufficient dieting as shown by Dr. Underhill's analysis of 100 dietaries. (See below) Detailed food expenditures per week are presented for 6 families (two from each of three different national stocks), three families having incomes between \$600 and \$700, and three having incomes of about \$900.

An estimated clothing budget and the cost of such a budget is given for a "normal" family--man, wife, girl of 10 and boys of 6 and 4 years of age "on the basis of the averages of expenditures and the details given in typical schedules." Average yearly clothing expenditures are given for men, women, boys and girls for all families and for families with and without gifts of clothing.

Expenditure for carfare is analyzed in reference to district of the city and rentals; number of families gathering free fuel is shown by nationality and income groups. In connection with outlay for health, the number of families depending on free medical aid and dentistry is indicated. As regards furniture, families are classified by a qualitative standard as well as by average expenditures; expenses for dues, taxes, contributions, recreation, newspapers, education and miscellaneous items are also briefly presented. Material on the number of families reporting the use of newspapers, books at home and of the public library is presented in detail.

A discussion of the general conditions of the families covers the following points: number and per cent of families reporting either surplus or deficit; number of families below standard as regards food and clothing, food and shelter, shelter and clothing; number and per cent of families under-fed, under-clothed, and over-crowded; number of families reporting savings and insurance, borrowing and pawning.

The second study presents an analysis of the expenditures of 100 families in Buffalo, New York by John R. Howard, Jr. Data are given on nationality, occupations of father, average income and expenditure, source of income, type of housing, and over-crowding. Average expenditures for rent, fuel and light, furniture, insurance, food, clothing, health, carfare, taxes, dues and contributions, recreation and amusement, education and reading, and miscellaneous are given by nationality groups. Food expenditures are analyzed for adequacy by measuring the families according to the Atwater scale, and determining the number spending more or less than 22 cents per energy unit per day. (See below) The percentage for each nationality purchasing newspapers and percentage reporting use of library are also given by nationality groups.

The third study in this volume, "A Nutrition Investigation" by Frank P. Underhill, Sheffield Laboratory of Physiological Chemistry, Yale University, was undertaken in connection with the study of the standard of living of workingmen's families in New York City--because there had arisen "a query whether some indication might be obtained concerning the nutritive conditions of these classes of people as judged from the quantities and kinds of food materials bought." Data on food consumption were obtained for 100 families for the period of a week "from grocery and meat books of the family, from account books kept by the housewife, and finally from estimations by the family of the various staple articles bought." The families were chosen as representative of twelve different national groups living in New York City. The division into families well nourished and those poorly nourished was made on the basis of the protein, carbohydrate and energy furnished by the foods purchased. The amount and cost of food purchased were reduced to a per man per day basis by the use of the Atwater scale. Comparison between the amounts spent for food by well nourished and poorly nourished families indicates that in general when less than 22 cents per man per day is spent for food, the nourishment derived is insufficient, and when more than 22 cents per man per day is expended the family is well nourished. This statement was used as a basis for judging the adequacy of food expenditures by Chapin and Howard in the two studies summarized above.

Appendices comprise: preliminary reports of the Committee on Standards of Living; a copy of the schedule used; reports on cost of living in nine cities and towns outside of greater New York; a translation of one of Le Play's monographs; a bibliography of works on standards of living.

Clark, S. A. and Wyatt, E.

1911. Making Both Ends Meet. The income and outlay of New York working girls, New York. 270 p., illus.

The National Consumer's League, initiated this study because a previous study looking towards the establishment of a minimum wage, had shown that very little information was available on income and expenditures of working women. The investigation was carried on during a year and a half 1910 - 1911, among self-supporting girls and women living in New York City and employed as saleswomen, factory workers, and laundry workers. The schedule method was used, investigators collecting material on expenditures, as well as personal histories, by means of interviews with the workers in their homes, and by taking jobs in various establishments. The information is presented in the form of individual case records, and comprises figures on the income and outlay of saleswomen and factory workers, without any statistical summary; discussions of seasonal work; of monotony and fatigue in speeding; of the shirt-waist makers' and cloth makers' strikes; of working conditions in laundries; of scientific management as applied to women's work.

(Colorado Bureau of Labor Statistics)

1888. First Biennial Report (1887/88): 250-253, 271-287, 313-329.

(Colorado Bureau of Labor Statistics)

1904. Ninth Biennial Report (1903/04): 16-28.

(Connecticut Bureau of Labor Statistics)

1889. Fourth Annual Report (1888): 87-135.

(Connecticut Bureau of Labor Statistics)
1897. Thirteenth Annual Report: 17-81.

(Connecticut Department of Labor)
1920. Report (1919/20): 30-80 (Pub. Doc.--Special).

(Connecticut Department of Labor)
1924. Report on the Condition of Wage-earners in the State: 66-87
(Pub. Doc.--Special).

(Connecticut Bureau of Labor Statistics)
1926. Thirty-second Report: 29-59. (Pub. Doc. No. 33).

Cowles, M. L.
1929. Variations in Demand for Clothing at Different Income Levels.
Chicago Univ. (Unpublished Thesis).

Eaves, L. (Director)
1917. The Food of Working Women in Boston. 213 p.
Boston. (Women's ed. and indus. union, Dept. of research. Studies
in econ. relations of women, v. 10.)

This book includes a series of studies made by the Women's Educational and Industrial Union of Boston, in cooperation with the State Department of Health, as a means of assisting women employed in Boston and living away from their homes. The first section of the report presents the nature and scope of the problem. The second analyzes factors affecting the noon lunch of 702 women and girls interviewed in factories and stores. The third presents material on the arrangements for securing food made by women living away from home in Boston obtained from 261 schedules, mostly secured in personal interviews between Dec.

1915 and April 1916, and covering these points: nationality, occupation, wages, amounts spent during one week for rent, laundry, meals, and food eaten each day over a 7-day period.

Kinds of food consumed are tabulated in an attempt to show frequency of consumption of foods characterized by protein, carbohydrates and mineral substances. Another section of this study describes the general living conditions in organized homes for working women (subsidized, cooperative and commercial), the variety and cost of food furnished therein. Information was obtained from 22 such houses in metropolitan Boston, and from 17 others, located in eight different cities. A record of the diet for an entire week was obtained in eight organized houses in Boston and its vicinity, and analyzed as to the adequacy of the protein and calories consumed per person per day. A fourth section presents a survey of the food habits of 126 women treated at public dispensaries for diseases generally conceded to be related to diet, showing frequency of use, in one representative week, of specific foods characterized by protein, carbohydrate and minerals; and further discussion of the 126 patients as to nationality, economic status, occupation, weekly hours of work, and use of leisure time. Appendices give copies of the specimen schedules; a list of firms throughout the United States having employees' cafeterias; methods of calculating the variety of food; bibliography.

Gibbs, W. S.

1917. The Minimum Cost of Living. 93 p. New York.

This study includes systematic records of expenditures in a group of families under the care of the Association for Improving the Condition of the Poor, in New York City from 1914 to 1916. Their purpose was primarily to enable family groups to make the best possible use of the money at their disposal, and secondarily, to collect data that might aid in improving social conditions. The group studied consisted of widows who had dependent children and who were granted a definite monthly cash allowance; from this group 150 expense accounts (of which 75 were chosen as the basis of this report) were collected by trained field workers. The discussion covers the following points: A food budget providing a basic diet, according to the standards of W. O. Atwater, giving quantities and costs, for a family of two adults and three children with factors for adjusting this budget to the needs of families of different composition; records of quantities of food actually consumed by 75 families, during one year, for each of eight major groups of foods; annual budgets compared with actual expenditures for rent, food, fuel and light, clothing and sundries. Size of family is measured by number of adults of each sex and of children. Other sections discuss "minimum requirements" and the actual situation as regards housing, fuel and light, clothing, insurance and sundries.

Great Britain. Board of trade.

1911. Cost of living in American towns...533 p. London.

This inquiry was the fifth of a series undertaken by the Board of Trade of Great Britain into working class conditions of life in the more important industrial towns of various countries for the purpose of obtaining data comparable with those contained in the Report on the "Cost of Living of the Working Classes" in the United Kingdom. The investigation was begun in February 1909 and information was collected by the schedule method for 7,616 families of the 28 industrial towns in the East, South and Middle West on weekly income, and expenditures for food and rent. British consular and diplomatic officials stationed in the United States collected the information, with the cooperation of social service agencies, employers and city officials. Data are presented for each town on wage rates, hours of work, housing conditions, rents and retail prices for food. Figures on income are presented according to occupation and national origin for 7,616 families, and more detailed figures on the amount and sources of family income, expenditures for rent and food, and the amount and cost of different foods consumed are presented for 3,215 American-British families. Tables giving the amounts and costs of different kinds of foods consumed by families of different national origin and income appear in the appendix. Family size is measured in persons.

Houghteling, L.

(1927). The Income and Standard of Living of Unskilled Laborers in Chicago. 224 p. Chicago.

Undertaken for the purpose of determining whether a proposed revision of the Chicago Standard Budget for Dependent Families set a higher standard than could be maintained by the families of independent laborers, this study analyses schedules received from the families of 467 unskilled and semi-skilled workers in Chicago in 1924, and detailed records of food consumption for one month of the same year from 54 such families. Annual earnings of the chief wage-earner were checked against the payrolls of the companies furnishing the names of the men whose families were interviewed. Only families having at least one dependent child were included. The schedules were not complete in all respects, but a report is given on sources and amount of family income, housing, heating and lighting, savings and debts, ownership of certain comforts, and assistance received at any previous period from social agencies for 467 families, on expenditures for food by 216 families, and on amounts of different foods consumed, food expenditures, and nutritive content of diet for 54 families. For the purpose of studying food expenditures, size of family was measured in terms of equivalent adult males according to the expenditure scale of the Chicago Standard Budget. Food consumption and housing were compared with the conditions set by the Standard Budget. Case studies are given in the appendix for 27 families.

Hughes, G. S.

1925. Mothers in Industry. 265 p. New York.

This study, covering the period from November 1918 to August 1919, was conducted by the Seybert Institution of Philadelphia and the Department of Social Economy and Social Research at Bryn Mawr; its purpose was to determine "whether the employment of the mother is vital to industry" and "whether her wage-earning interferes with home life." In a preliminary survey information in regard to sources of income and composition of family were obtained from 10,838 households; 588 of the households investigated, represented families in which there was a wage-earning mother with one or more children under sixteen years of age; through social agencies and employers, there were obtained 140 more cases fulfilling these same requirements; schedules were obtained from these 720 women. The main points covered are: their reasons for working; their households; permanent and intermittent employment; marital status; nativity and ages of wage-earning mothers and their husbands; the interval between marriage and wage-earning; the family income; the length of the mother's working-day; the adjustment between the demands of home and of industry; the effect of the employment of mothers upon the birth-rate, upon infant mortality; health defects in the homes of wage-earning mothers.

Appendices give the schedule form filled out by wage-earning mothers, and bibliography.

(Illinois Bureau of Labor Statistics)

(1883). Second Biennial Report. (1881/82): 88-365

(Indiana Department of Statistics)

1892. Fourth Biennial Report (1891/92): 16-41, 339-352.

This report embodies a discussion of general living conditions based on statements from over 2000 wage-earners in iron industries of the state, arranged according to specified occupations, and given separately for 14 of the principal cities; the points covered are, number reporting for each occupation and locality; number married; number in family; number owning home, renting; average yearly rent; minimum, maximum and average daily wages; number of days employed; average yearly income. A yearly budget as offered by the Bureau is as follows: Annual earnings, \$312; cost of goods for 3 adults, 365 days, 3 meals a day at 5 cents a meal, \$164.25; fuel, \$24.00; health, \$15.00; clothing (\$8.25 Each), \$24.75; rent \$84.00.

In 1891, agents of the Bureau visited 71 families, comprising 312 persons, among wage earners of Indianapolis, Terre Haute, and Evansville, and obtained on

schedules the following data for each family: occupation; number in family; number paying board; amount paid as board in 1891; number of months employed in 1891, and earnings; total income of family (board money is included) for 1891; number owning homes; average yearly rent paid by renters; yearly cost of specified food commodities, fuel and light, clothing, furniture, books, tobacco, health, miscellaneous items; total yearly expenditure. The foregoing items are given for individual families, by cities; and for all families in each of the 3 cities, there is given the number of families, total number of persons, average yearly earnings, average yearly rent, total expenditure, average expenditure per family and per capita, and expenditure for each of the items of living costs enumerated above.

(Iowa Bureau of Labor Statistics)

1885. First Biennial Report (1884/85): 245-265; 287-346.

Questionnaires sent to teachers within the state resulted in 347 returns which are tabulated individually, and for males and females separately, to show age; native or foreign born; number of terms taught; whether having college education; earnings per month; total yearly earnings; cost of living for the year; average monthly cost of board; number wholly or partially dependent on teacher for support; number of teachers having insurance; number having accumulated savings; number in debt; number owning home. A recapitulation gives totals and averages.

A general discussion of cost of living presents average retail prices as follows: for each of 24 staple commodities; by counties, and for the state as a whole, for beef, mutton, veal, pork and salt meats, with increase or decrease as compared to former years; for 13 staple groceries in Iowa, Chicago, New York City and specified cities and countries abroad; for staple items of dry goods, boots and shoes, clothing, coal and wood; for monthly rentals, particular types of habitation, in specified counties and towns.

Further discussion of living costs in Iowa is based ^{on} 1183 responses to a questionnaire circulated among the wage-earners of the state; tabular presentation is by occupations and by counties. The table by occupations covers the following points: number of returns; average age; native or foreign-born; average daily, weekly, monthly wages; average yearly earnings; number of wage earners aided by families; average earnings of families; average cost of living per year; number owning homes; number renting; average monthly rent and number of rooms rented; average number in family; percentage increase or decrease in cost of living; number of wage-earners having insurance; number having saved; number in debt. The arrangement by counties shows occupation; number reporting, average age; native or foreign born; average yearly earnings; number aided by families; average cost of living; average number in family; number renting; percentage increase or decrease in cost of living; maximum, minimum and average daily wages; number in debt.

(Iowa Bureau of Labor Statistics)

1887. Second Biennial Report (1886/87): 5-118, 165-195.

(Iowa Bureau of Labor Statistics)

1889. Third Biennial Report (1888/89): 5-64, 103-107, 125-185.

(Iowa Bureau of Labor Statistics)

1891. Fourth Biennial Report (1890/91): 271-273.

(Kansas Bureau of Labor and Industrial Statistics.)

1886. First Annual Report (1885): 52-55, 132-142, 204-232, 248-257.

Returns from 337 wage-earners are tabulated to show for each individual reporting, occupation; age; place of birth; present residence; number of hours employed daily; wages per day; total yearly earnings, days lost during year, from specified causes; yearly earnings of members of the family; yearly cost of living; number owning homes; number of rooms rented; monthly rent paid; number in family; number working for wages; number in school; increase or decrease (fact, not amount) in wages; in cost of living; number who saved in former years, in year past, never saved, ran in debt; number of families living in one house. A summary by occupations gives the following data: number reporting; average hours employed daily; average daily wages; average yearly earning of head of family; of other members; average family income; average total expenditure; average number in family; average number in school.

For 17 negro families migrant to Kansas from Mississippi, returns are tabulated to show for each individual family the occupation and age of the head of the family; his total earnings for the year ending June 30, 1885; number of days lost during the year, from specified causes; number in family; earnings of other members of the family; yearly cost of family living; number owning homes; for those renting, monthly rent and number of rooms occupied; there are also case records for 13 families.

Other information relating to cost of living is as follows: a table showing gross yearly earnings, deductions, and total family expenses for Kansas miners; limited data on average retail prices, one leading grocer in Topeka reporting prices for specified staple items of groceries; thirty-two specimen daily rations ranging from less than 11 cts. to over 45 cts. in cost, and furnishing nutrients equivalent to the standard of a laboring man at moderate work, are quoted from Prof. Atwater (amount as well as cost of each specific food is given).

(Kansas Bureau of Labor and Industrial Statistics)
1887. Second Annual Report. (1886): 125-373.

(Kansas Bureau of Labor and Industrial Statistics)
1888. Third Annual Report. (1887): 75-191.

(Kansas Bureau of Labor and Industrial Statistics)
1889. Fourth Annual Report. (1888): 169-265.

(Kansas Bureau of Labor and Industrial Statistics)
1890. Fifth Annual Report. (1889): 197-326.

(Kansas Bureau of Labor and Industry)
1896. Eleventh Annual Report. (1895): 96-153.

(Kansas Bureau of Labor and Industry)
1897. Twelfth Annual Report. (1896): 61-95.

(Kansas Bureau of Labor and Industrial Statistics)
1899. Fourteenth Annual Report. (1898): 96-165.

(Kansas Bureau of Labor and Industry)
1900. Fifteenth Annual Report. (1899): 1-301.

(Kansas Bureau of Labor and Industry)
1903. First Biennial Report. (1901/02): 5-121.

(Kansas Bureau of Labor and Industry)
1905. Second Biennial Report. (1903/04): 3-158, 179-337, 361-407.

(Kansas Bureau of Labor and Industry)
1907. Twenty-second Annual Report. (1906): 1-83.

(Kansas Bureau of Labor and Industry)
1908. Twenty-third Annual Report. (1907): 1-100.

Kennedy, J. C., and others
1914. Wages and Family Budgets in the Chicago Stockyards District,
Chicago, 80 p., illus.

This study was made under the direction of the Board of the University of Chicago Settlement, and deals with conditions in the "Packingtown" district (the community about the Settlement) up to and including 1910. The purpose of the investigation was to ascertain how the standards of living among the people of the district were affected by the wage-scales in the packing plants, and further, what factors determined wage-scales. Information was obtained from payrolls, time-keepers and officials; from a personal canvass of 350 workers in the various departments of the packing industry; and from 184 typical stockyard families, who kept daily records of expenditures which were checked every week by paid agents, at certain periods between April, 1909 and April 1910. Over 75 per cent of the accounts were kept for periods of six months or more. The points covered in the report comprise a discussion of the racial composition of the district; broken time, and probable average weekly earnings; actual yearly earnings of male and female workers; comparative wage-scales, 1896, 1903, and 1910; movement of wages in relation to cost of living; comparison of conditions in packing districts of Chicago, with conditions among workers in the ready-made clothing establishments of Chicago, and with conditions among unskilled laborers in Kansas City and in Omaha; analysis of the family expenditures into average expenditure for rent, food, clothing and miscellaneous; a recommended minimum budget in detail, for a family of five persons; an estimate of additional amounts necessary for families of six and seven numbers.

Kenngott, G. F.

1912. The Record of a City: A social Survey of Lowell, Massachusetts
256, illus, New York.

This book is an expansion of a doctor's dissertation offered at Harvard University and constitutes an exhaustive study of the social and industrial conditions existing in the city of Lowell about 1909. An historic sketch at the beginning of the volume furnishes background for the subsequent chapters, which deal with the following points: population, housing, health conditions, industrial conditions, living standards, social institutions, and means of recreation. Under population is discussed the number of nationalities represented, their relative strength, their characteristics, their prevalence in various mills. Housing covers such points as overcrowding, sanitation in tenements, rentals, extent to which corporations still house their employes. Health conditions are presented by means of figures showing deaths by age groups, nationality, diseases, by 10-year periods 1850-1909; death rate from specific causes, by nationality and age groups; birth rate by nationality. Industrial conditions are developed under the following heads: survey of the movement for a reduction of working-hours; predominant weekly rates; brief sketch of labor troubles; "absenteeism" in mill ownership. The discussion of living standards is based on data from 287 schedules, gathered by reliable persons, and from among sober, industrious, self-maintaining wage-earners, to represent an ordinary week in 1909. The investigators used the same schedule as that utilized by the British Board of Trade in its 1909 investigation in other cities of the United States, obtaining information on the occupation of the head of the family, number in the family, country of birth of husband and wife, number of children, amount and source of average weekly income, house rent, number of rooms occupied, and kinds, amount and cost of food purchased in one week. Two hundred and twenty-eight schedules from families of different nationalities were analyzed for food-caloric value per man per day (Atwater scale), and for proportion of wages expended for shelter; all schedules were summarized for average family size and average income; 87 schedules selected at random are published in detail; comparisons were made with family budgets of Lowell wage-earners, collected by the Massachusetts Bureau of Labor, in 1875. The discussion of socializing influences dealt with the following factors: churches, hospitals; day nurseries and Homes; social and community organizations; Board of Trade; banking institutions; newspapers and other publications; schools; outdoor recreations, such as games, car rides to resorts, parks and playgrounds, summer camps maintained by the Y. M. C. A. and the Y. W. C. A.; indoor recreations, such as library, theatres, moving pictures, dances, church clubs.

Leeds, J. D.

1917. The Household Budget. 246 p. Philadelphia.
(See under this title in Budget section)

Little, E. L., and Colton, W. J. H.

1920. Budgets of Families and Individuals of Kensington, Philadelphia.
273 p.

Lynd, R. S. & H. M.

1929. Middletown, 534 p. New York.

This study of "the interwoven trends that are the life of a small American city" is divided into six sections: getting a living, making a home, training the young, using leisure, engaging in religious practices, and engaging in community activities. The authors lived in the city they were studying for two years. The entire book is in a broad sense, a study of the "standards of living" prevailing in the city studied in 1890 and 1924, and two chapters in the section "Making a home" may be said to be devoted entirely to that subject, as it is most narrowly defined.

The section on making a home is based partly on local and federal statistics, partly on material from the local press in both periods, and partly on schedules collected from 124 working class families, and 40 business class families.

Data on houses occupied cover for both periods, material of houses, size, porches (number and kind), prevalence of running water, kinds of toilets and sewage disposal, kinds of furnishings in 1924 at three different economic levels, money value of houses, rents, and methods of financing home building.

The chapter on "Food, clothing and housework" includes discussion of changes in food eaten, social importance of food, household production of food versus factory production; changes in kinds of garments worn, social importance of clothing, cost of clothing; organization of housework, time spent in housework, use of paid help, and of labor saving devices.

All tables are given in the appendix. They present material on the distance employees in three representative plants live from place of work; for 100 working class families in the year ending October, 1924, earned income, surplus or deficit, and expenditures for life insurance, rent, investment in house, furniture, church and Sunday school, lodges, labor unions, other clubs, newspapers and periodicals, books (not school books), music lessons, sheet music and victrola and pianola records, concerts and lectures, automobile, vacation, other recreation, separately for each family, with the median and quartile ranges; "minimum" cost of living for a family of five in 1924, based on the "minimum quantity budget of the Bureau of Labor Statistics," priced in Middletown; cost of living index for a working class family of five in 1924, (1891 - 100), "The method of calculating the index follows that of the cost of living index of the U. S. Bureau of Labor Statistics except that every effort was made to make the weights by which the prices were multiplied correspond to the amounts consumed by a Middletown family of five in 1891;" housing mobility of business class and working class families, 1920 -24, and 1893-96; and number in family of 40 business class and 124 working class families interviewed.

(Maine Bureau of Industrial and Labor Statistics)

1888. First Annual Report. (1887): 61-78, 89-96.

(Maine Bureau of Industrial and Labor Statistics)

1890. Third Annual Report. (1889): 29-41, 69-71, 96-99.

(Maryland Bureau of Industrial Statistics and Information)

1886. First Biennial Report. (1884/85): 80-86, 187-201.

(Maryland Bureau of Statistics and Information)

1903. Eleventh Annual Report: 2-21.

(Maryland Bureau of Statistics and Information)

(1905) Thirteenth Annual Report. (1904): 113-121.

(Maryland Bureau of Statistics and Information)

1907. Fifteenth Annual Report. (1906): 133-151.

(Massachusetts Bureau of Statistics of Labor)

1871. Second Annual Report. (1870/71): 423-452.

(Massachusetts Bureau of Labor Statistics)

1872. Third Annual Report. (1871/72): 251-292, 463-529.

(Massachusetts Bureau of Statistics of Labor)

1873. Fourth Annual Report. (1872/73): 109-128.

(Massachusetts Bureau of Labor Statistics)

1874. Fifth Annual Report. (1873): 21-27, 161-200, 258-263.

(Massachusetts Bureau of Statistics of Labor)

1875. Sixth Annual Report. (1874/75): 191-450.

(Massachusetts Bureau of Statistics of Labor)

1876. Seventh Annual Report. (Pub. Doc. No. 31) 363 p. Boston.

(Massachusetts Bureau of Statistics of Labor)

1881. Twelfth Annual Report. (1880): 416-441.

(Massachusetts Bureau of Statistics of Labor)

1884. Fifteenth Annual Report. (1883): 435-469.

(Massachusetts Bureau of Statistics of Labor)

1902. Thirty-second Annual Report. (1901/02): 239-314.

(Massachusetts Bureau of Statistics of Labor)

1905. Thirty-fifth Annual Report. (1904/05): 79-130.

(Massachusetts Commission on the Cost of Living)

1910. Report (House Doc. No. 1750): 571-605.

Meeker, R., and Kittredge, D. D.

1920. Analysis of some effects of increased cost of living on family budgets.
U. S. Dept. Labor, Bur. Labor Statis., Mo. Labor Rev. 11: 1-10.

(Michigan Bureau of Labor and Industrial Statistics)

1890. Seventh Annual Report. (1889): 3-305.

(Michigan Bureau of Labor and Industrial Statistics)

1891. Eighth Annual Report. (1890). 451 p. Lansing.

(Michigan Bureau of Labor and Industrial Statistics)

1892. Ninth Annual Report. (1891): 1-133.

(Minnesota Bureau of Labor, Industries and Commerce)

1910. Twelfth Biennial Report. (1909/10): 325-536.

(Missouri Bureau of Statistics)

1923. Forty-Second & Forty-Third Annual Report. (1921/22): 329-929.

(Missouri Bureau of Labor Statistics)

1924. Forty-fourth Annual Report. (1923): 54-56.

(Montana Bureau of Agriculture, Labor and Industry)
1893. First Annual Report: 11-151.

(Montana Bureau of Agriculture, Labor and Industry)
1895. Second Annual Report. (1894): 31-62.

This report presents an analysis of data on general working and living conditions, furnished by 3079 wage-earners of the state, for the year ending June 30, 1894; among the points covered are the following: occupation; average age at which they began wage-earning; per cent of males, females, married, single, native born, foreign born; average earnings for year; average monthly cost per person of board and lodging, rent; per cent owning homes, average value of homes and average number of rooms; per cent renting, average monthly rent and average number of rooms; per cent of those married having children; average number of children per married person; per cent at school of children reported; per cent of all reporting carrying accident insurance; average amount of such accident insurance; average amount of life insurance.

Summaries presented for each of the principal labor-employing counties cover occupation; average yearly earnings; average cost, to unmarried persons, of board and lodging; for married persons, average rent paid, and number of rooms occupied in either rented or owned homes.

Average board and lodging rates, hotels and boarding houses, are given for the year ending June 1894, by proprietors in specified counties, wholesale and retail prices, bases on statements of merchants and dealers in specified counties, are given for 16 items of food, for the year ending June 1894.

Cost of living data from 35 families for the same year comprises the following information: county; occupation; for husband and wife separately, nativity (native or foreign born), years in the United States, years in Montana; family composition; number of persons paying board; family income yearly, from specified sources; yearly expenditure for specified groups of food; rent; fire and light; clothing; dry goods; furniture; books, religion, charity, etc; newspapers, magazines and stationery; tobacco and liquor; miscellaneous items; total income; total expenditure; amount of surplus or deficit.

More, L. D.
1907. Wage-Earners' Budgets. 270 p. New York

This study was undertaken to determine "standard of living among the different races and occupations in the neighborhood of Greenwich House" a social settlement on the lower West Side, in New York City; material on the living standards and ex-

penditures of 200 families of the wage-earning class, was collected during the period from November 1903 to September 1905, by means of schedules, and of itemized household accounts kept by fifty families for lengths of time varying from one week to one year. The information presented comprises a summary for each of the 200 family schedules, giving the occupation of the man of the house, the nationality of both man and wife, the number of persons in the family, the yearly income, the yearly expenditures (classified under Food, Rent, Clothing, Light and Fuel, Insurance, Sundries); average expenditures per family under these six main items, for families classified by income levels, by nationality and by family size; average expenditures classed under "Sundries", distributed under the following headings recreation, union, gifts or loans, drink, church, furniture, papers, carfares, medical attendance, spending money, education, domestic service, funerals, and miscellaneous. The report includes itemized accounts secured from twelve typical families, giving both quantities and costs for food and clothing.

Mossell, S. T.

1921. The Standard of Living Among one hundred Negro Migrant Families in Philadelphia. *Ann. Amer. Acad. Polit. and Social Sci.* 95 (187): 173-213.

This study, offered as a doctor's dissertation at the University of Pennsylvania, was conducted from October 2, 1919 to December 31, 1919, in the 29th ward of Philadelphia, among 100 negro families who had come to take industrial jobs in that city from the agricultural districts of Mississippi, Alabama, Florida, Georgia, South Carolina. The purpose of the investigation was to determine (1) what constituted a fair standard of living for the negro migrant families in Philadelphia, (2) how many families could obtain an income sufficient for a fair standard, and expend that income wisely, (3) what was the effect of these migrant families upon racial conditions in the city. The investigator made personal visits to the families, filling out schedules which were later checked or supplemented from store-book records covering periods of from three to six months. The information comprises a copy of the schedule used; a general discussion of Expenditures for the items that make up a family budget; a list of food items purchased by three families, and for comparison, a list of food items suggested as a fair standard of living, by the Bureau of Municipal Research, Philadelphia. The material presented in tabular form is as follows: analysis of incomes, classified by number of persons in family and by income groups, showing total income, and amount and percentage of this total contributed by different members of the family; analysis of expenditures, classified by number of persons and by income groups, showing amount and percentage of income spent for the following--food per adult male (Bureau of Labor Statistics scale) and per family, clothing per adult male and per family, rent, fuel and light, staples, alcohol, amusement, carfare, church, doctor, furniture, insurance, miscellaneous, tobacco, sundries, surplus, deficit; a suggested budget itemized as follows--food, clothing, rent, fuel and light, amusement, church, insurance, furniture,

medical aid, carfare, tobacco, miscellaneous. Adequacy of diet was estimated by comparing expenditures per adult male unit with the cost per adult male unit of the food budget recommended by the Philadelphia Bureau of Municipal Research, and the percentage of families estimates as being under fed is presented for each income group.

(Nebraska Bureau of Labor and Industrial Statistics)
1890. Second Biennial Report. (1889/90): 9-54.

This report presents data on living conditions of wage-earners, compiled from about 700 schedules collected by agents, and from 22 family accounts. The schedule material is grouped under 25 occupations, and shows: number of cases; nominal and actual earnings; value in necessities; amount of variation; possible savings for year; family size; number of rooms occupied; monthly rental; yearly clothing expenditures for men, women, children, and for family as a whole; quantities and cost, monthly, for about 30 items of food; average expenditures for all food; yearly cost and quantities purchased of specified items of house furnishings; monthly expenditures for each of the items oil and fuel (quantities also given), music, reading matter, health, amusements, contributions, carfare, tobacco and liquors, life insurance, lodge dues; total average monthly expenditures.

Under the heading "Savings" is shown the number of families reporting; the per cent saving; average possible savings; average actual savings; average amount invested; average amount deposited; maximum single savings (one man) in year of study, in 5-year period.

Expense accounts kept by 22 families are tabulated individually to show: occupation; number in family; residence; nationality; number of days worked in year; total yearly earnings; total expenditure, amount expended for each of the items rent, clothing, food, house furnishings, and combined amount expended for all other items; savings during year, during former years and still possessed.

(Nebraska Bureau of Labor and Industrial Statistics)
1909. Eleventh Biennial Report. (1907/08): 193-193.

(Nebraska Bureau of Labor & Industrial Statistics)
1910. Twelfth Biennial Report: (1909/10): 140-142.

(Nebraska, Bureau of Labor and Industrial Statistics)
1912. Thirteenth Biennial Report. (1911/12): 70-75.

This report of the Nebraska Bureau of Labor and Industries dealing with the condition of wage-earners and with general industrial conditions within the state, presents material which was gathered in an effort to establish the cost of living of wage-earners in the industrial centers, Omaha, South Omaha, Lincoln, Beatrice, Hastings, Fremont and Nebraska City. In each locality several families, each consisting of five members (the average sized family as shown by Census reports) kept careful records of every item of family consumption; these records, tabulated and analyzed, are presented in the following form: average wages and hours of work, by occupation and sex; average cost of living (on monthly basis for a family of five persons, representing the wage-earners of the minimum class in our industrial centers, and dealt with separately for the seven localities), classified as house rent, fuel and ice, light, food and provisions, clothing, doctor's bills and medicine, street car fare, amusements, laundry, incidentals, including union dues, insurance, etc.; minimum cost of living for the individual, classified as room rent, board, clothing, doctor's bills and medicine, amusements, laundry, incidentals.

(New Hampshire Bureau of Labor)
1893. First Annual Report: 73-215.

(New Hampshire Bureau of Labor)
1896. First Biennial Report. (1894/95): 7-317.

(New Jersey Bureau of Statistics of Labor and Industries)
1878. First Annual Report: 3-59.

(New Jersey Bureau of Statistics of Labor and Industries)
1879. Second Annual Report: 41-97.

(New Jersey Bureau of Statistics of Labor and Industries)
1830. Third Annual Report: 1-69, 243-336.

Replies to a questionnaire (a copy of which is published) sent to wage-earners in the state amounted to almost 1000, and are tabulated individually by occupational groups, to show nativity of wage-earner; marital status; earnings of self; of family; total income; yearly expenses incurred for each of the items board, rent, fuel, clothing, groceries, meats, vegetables, sundries; total yearly expenditure; total yearly income; surplus or deficit; total number reporting, and average for each query. Summarized by occupations, the returns are tabulated to show number reporting, aggregate and average earnings; aggregate and average expenditure for each of the items of family living listed above.

There is also a discussion of what should constitute the workman's diet.

On the basis of consular reports made to the State Department, comparison is made between wages for specified occupations, and prices for specified commodities, in New York City, in Chicago, and in selected countries abroad.

(New Jersey Bureau of Statistics of Labor and Industries)
1833. Sixth Annual Report: 1-29.

(New Jersey Bureau of Labor and Industries)
1835. Seventh Annual Report. (1834): 1-65.

(New Jersey Bureau of Statistics of Labor and Industries)
1835. Eighth Annual Report: 3-33, 139-228.

(New Jersey Bureau of Statistics of Labor and Industries)
1836. Ninth Annual Report: 1-177.

(New Jersey Bureau of Statistics of Labor and Industries)
1894. Sixteenth Annual Report. (1893): 79-141.

New York (City) Bureau of Standards.

1915. Report on the Cost of Living for an unskilled laborer's family in
New York City. 57 p. (New York)

The Bureau of Standards of New York City was aided by the Bureau of Municipal Research, in an attempt to determine a proper wage for unskilled laborers in city employ. The report summarizes data on family income and expenditures obtained by letters and interviews, from twenty members of the New York Street Cleaning force under the following headings: salary, other income, total income, total expenditure, rent, light and heat, food, carfare, clothing, insurance, amusements, house furnishings, and medical attention. The budget prepared as a result of studying these expenditure figures, is presented along with some other budgets in both quantity and cost figures.

Bibliography on cost of living of workingman's families in New York City is given in the appendix.

(New York (State) Bureau of Statistics)
1893. Tenth Annual Report. (1892): 293-335.

(New York (State) Factory Investigating Commission)
1915. Fourth Report of the Factory Investigating Commission.
v. 4, p. 1235-2263.

This study is the result of an investigation undertaken to determine the advisability of fixing a minimum wage that should maintain a worker at a simple decency-efficiency standard; it was conducted during 1914, and represents data from 1937 self-supporting women of the class most to be affected by minimum wage legislation--300 were workers in department stores and 531 were workers in candy, paper-box, and shirt factories in New York City, and 403 were store workers, 196 factory workers, elsewhere in the state. The information, collected by means of a schedule filled in by an investigator, covers the following points; nativity of the 1937 women; nativity of fathers of 1467 native-born women; 1937 women classified by age groups; ages at which they left school; conjugal con-

dition; domicile (whether living at home, with relatives, with friends, or independently); family and individual earnings; distribution of expenditures. These figures on expenditures, given separately for store and factory workers, for New York City and up-state, and tabulated according to specified weekly earnings, show average weekly expenditure for board, lodging and lunches (separately for those living at home and for those living independently); for contributions to the family; clothing; laundry; carfare; savings; dues and insurance; miscellaneous expenses.

For the 800 store workers of greater New York, the following cost of living data is presented: weekly contributions to the family of 533 workers living at home; weekly cost of board, lodgings, lunches to 140 workers living with friends or relatives; weekly cost of board, lodgings, lunches to 125 workers living independently; weekly cost of lunches to all 800 women; weekly provision for laundry of 800 women; annual clothing expenditures of 800 women; (clothing lists, quantity and cost, from five of the women, and a projected quantity budget); living conditions (a discussion illustrated by diagrams and photographs of eight lodgings); weekly carfares, annual savings, monthly insurance premiums and dues in social and religious organizations, weekly spending money, of all 800 women. Practically all of the foregoing is classified according to specified weekly earnings of the women.

A brief section dealing with probable living expenses of an unmarried man gives an estimated budget comprising the following items: board and room, lunches, clothing (quantity and cost), laundry, insurance, carfare, recreation and amusements, incidentals.

A supplementary investigation carried on during July and August, 1914 among families with incomes of from \$12-\$20 a week, and whose homes were procured from the lists of the Hudson Guild and the Labor Temple, provided a working basis for recommendation in regard to living costs of normal families (father, mother, three unemployed children). Food prices, average and relative, are given for about 30 staple foods in each of the five cities, New York, Buffalo, Albany, Syracuse, and Elmira; two daily and two weekly dietaries are given, designed to meet the requirements advanced by both Atwater and Underhill, specifying the quantities of individual foods, and the prices, as of August 1, 1914, in each of the five cities named above; for clothing, standard quantity budgets have been prepared, and prices applied, and projected yearly (quantity and cost) clothing budgets are offered for a man, a woman, boys of 13, 10 and 4 years, and girls of the same ages; housing is discussed, and a statement made as to probable outlays for carfare, insurance, health, furnishings, education, recreation and amusements, and miscellaneous needs. All of the above items are then summarized into an itemized budget for the normal family living in New York City, in Buffalo.

Appendices are: Living on \$6 a week (way in which different items of the budget solved by various individuals); How the working girl of New York lives; replies by social workers to a letter concerning the cost of living as their experiences showed it; copy of schedule used in collecting family data tables of expenditures of New York factory workers, classified according to specified weekly earnings, and showing weekly contributions to family treasury, weekly outlay for board, lodgings, lunches, monthly outlay for dues, etc., annual clothing costs, annual savings, weekly spending money; weekly menus and yearly clothing lists (quantities only) of ten families; case descriptions, Troy, Buffalo, New York.

Noble, C. V.

1924. The Cost of Living in a Small Factory Town. N. Y. Agr. Col.
(Cornell) Agr. Expt. St. Bul. 431, (60) p.

Ogburn, W. F.

1919. Analysis of the Standard of Living in the District of Columbia in
1916. Amer. Statis. Assoc. Quart. Publ. 16 (n.s. 126): 374-389.

This study is intended to present a method of analysis for use in determining how expenditure for different items varies with size of income and size of family. For his purpose the author has selected 200 cases from over 2000 family schedules collected by the United States Department of Labor, Bureau of Labor Statistics, in 1916, in the District of Columbia; in the original study the families were both white and negro, with the head of the family earning not less than 75 per cent of the total family income and the latter not exceeding \$2000 yearly; in the 200 cases which constitute this study, all the families are white, composed of man and wife, with no lodgers, boarders or adults other than their children, living in rented houses and supplying full detail on expenditures classified as "sundry"; about 90 occupations are represented.

Relationships are worked out between annual family income in dollars, and size of family in adult male units (based on relative food requirements, Bureau of Labor Statistics Scale), and each of the "variables", i.e., the items of expenditure varying with income and with family size. These variables are as follows: cost of food per adult male unit per day; total clothing costs in multiples of the amount spent for husband's clothing; deficit or surplus; and expenditure for each of the items, food, rent, fuel and light, clothing, husband's clothing, wife's clothing, children's clothing, insurance, furniture and furnishings, contributions for religion, education, amusement, liquor and tobacco, sickness. The relationships are expressed (1) in terms of correlation coefficients and (2) in terms of regression equations, eliminating the effect of small samples, and showing the "ideal" value of any variable for a given income or family size. Attention is called to the correlation ratios as a check upon the accuracy of the assumption of straight-line regression.

Since these coefficients of correlation and regression equations measure the fluctuations of one variable in reference to one constant, another method, that of partial correlation and partial regression equations, is employed to eliminate the effect of a third factor which may influence variations. The use of the standard or probable errors as a test of the significance of correlations is also suggested.

A test is made of the suitability of the food requirement scale as a measure for other items of consumption by comparing the percentage relation of clothing expenditures for husbands, wives and children with the calorie requirements of men, women, and children; adult male unit figures obtained by dividing total family clothing expenditure by husband's clothing expenditure, and adult male

units calculated on basis of food requirements scale, give closely approximating results.

The value of these methods consists in the possibility (1) of comparing studies where family size and income are different, (2) of foretelling what families of any size and income (excluding extremes) will expend on a variety of items, (3) of indicating the effect, in adjustment and curtailment, of a static income and a growing family.

Ogburn, W. F.

1919. A study of Food Costs in Various Cities. U. S. Dept. Labor, Bur. Labor Statis. Mo. Labor Rev., 9 (2): 1 - 25 303-327. illus.

"This article presents the conclusions reached by analyzing the food budgets gathered by the agents of the United States Bureau of Labor Statistics in the cost-of-living survey of 1918-19." The schedules filled out in that survey included detailed estimates of the food consumption of the families of 12,092 wage-earners in 92 cities. This report begins by giving the average food expenditure in each city by families having incomes between \$1200 and \$1500. The figures are presented in terms of expenditure per family and per adult male unit (measuring the families according to the scale of the Bureau of Labor Statistics). Statistics on average annual expenditures for food per family are presented for forty-three localities for families of the same size (3.35 adult male units) and with the same total annual expenditure, \$1300. The cost of adequate dietaries in eleven localities for families with varying expenditures was estimated by assuming that "the dietaries which yield 3500 calories per man per day are usually abundant enough and varied enough to be fairly well balanced and fairly adequate in the amounts of the necessary constituents." A final section of the article presents a chemical analysis of the food in average dietaries in eleven localities, (giving the protein, fat, carbohydrates, calcium, iron, phosphorus--and ash in grams per man per day) and a tabulation of the amounts of different foods consumed--per man per day in each of these localities.

Ogburn, W. F.

1919. A Study of Rents in Various Cities. U. S. Dept. Labor, Bur. Labor Statis. Mo. Labor Rev., 9 (3) 9-30 617-635 illus.

This article presents the conclusions reached by analyzing data on house rents paid by the families of American wage-earners gathered by the agents of the United States Bureau of Labor Statistics in the cost-of-living survey of 1918-19.

The schedules filled out in that survey contained figures on rents paid by approximately 100 families in each of the 92 communities visited. The report begins by giving average expenditures for rent for the families paying rent in each community and having incomes from \$1200 to \$1500 a year, not including those where payments for light and fuel are combined with rent. For 45 communities rents were computed for families of constant size with an income of \$1300. Variations in the percentage of the family income devoted to rent in relation to variations in size of family and size of income are given for ten different communities.

Variations in rent with the type of housing provided is given by comparing the rents of apartments and houses of different size with, and without bath. Overcrowding is measured by studying different localities according to the number of persons per room in families of the same size having annual expenditures of \$1300, the number of persons per room in families of varying size but with the same income, and the number and per cent of all families reporting specified number of rooms per person.

(Ohio Bureau of Labor Statistics)

1878. First Annual Report. (1877): 302-310.

(Ohio Bureau of Labor Statistics)

1879. Second Annual Report. (1878): 231-255.

(Ohio Bureau of Labor Statistics)

1880. Third Annual Report. (1879): 203-242.

(Ohio Bureau of Labor Statistics)

1881. Fourth Annual Report. (1880): 1215-1230, 1317-1339.

(Ohio Bureau of Labor Statistics)

1882. Fifth Annual Report. (1881): 7-75.

(Ohio Bureau of Labor Statistics)

1883. Sixth Annual Report. (1882): 72-101, 187-226.

(Ohio Bureau of Labor Statistics)

1884. Seventh Annual Report. (1883): 14-212.

(Ohio Bureau of Labor Statistics)

1885. Eighth Annual Report. (1884): 262-275, 299-314.

(Ohio Bureau of Labor Statistics)

1886. Ninth Annual Report. (1885): 16-17, 33-139, 317-355.

(Ohio Bureau of Labor Statistics)

1887. Tenth Annual Report. (1886): 187-239.

(Ohio Industrial Commission. Department of Investigation and Statistics)

1915. Cost of living of working women in Ohio. Rpt. 14, 255 p. Columbus.

Volunteer social workers, (university students of sociology, etc.) supervised by the Department's staff, visited wage-earning women and assisted them in keeping accounts of one month's expenditures, and in making estimates of a year's expenditures. A preliminary schedule filled out by the visitor formed the basis for selecting wage-earners over 16, living away from home, earning not more than \$624 yearly, and either native American or having "the so called American standard of living." The schedules, account forms, and instructions to volunteer workers are reprinted and a list of cooperating organizations and individuals; 164 complete budgets were reported; 203 individual returns are tabulated to show occupation, mode of living (whether boarding and lodging or light house-keeping), number of weeks account was kept, average weekly earnings, average weekly income from other sources, total weekly expenditures, and the following subdivisions of expenditures: food and shelter, clothing, laundry, carfare, health, recreation and amusements, fruit, candy, soda, etc; education; church

and charity; stamps and stationery; association dues; insurance; gifts; and incidentals. Returns are grouped by cities for Cincinnati, Cleveland, Columbus, Dayton, and Toledo, cities of 50,000 to 100,000, and cities under 50,000; 42 detailed typical accounts are presented.

Supplementary surveys of rooming house rates were made in Cleveland and Columbus.

Summary tables are given comparing average expenditures by income levels, by mode of living, distribution of occupation, and average amount expended for each expenditure subdivision. The average for clothing is subdivided to show the average amount spent for foot wear and repair, for hosiery; under-clothing and night dresses; outer clothing (dresses and coats); belts and neckwear; gloves; hats; dressmaking, cleaning and repair of clothing; miscellaneous clothing.

The appendices include a bibliography of recent investigations of cost of living compiled by Charles W. Reeder in 1915. It includes state reports from 8 states.

Expenditures for each major item are summarized by income levels. Quantities of individual clothing are given in the individual accounts printed. A general summary of 164 annual budgets gives, by the same city grouping enumerated above, average earnings, income, and total subdivided expenditures, percentage figures to correspond; the same data by mode of living instead of cities; the same by occupational groups (factory, office, saleswomen, all other). The same data is presented for clothing alone, subdivided into the 9 clothing subdivisions mentioned earlier, by cities and by occupation groups.

Apparently most of the information was collected in the fall of 1914. It was obtained for the purpose of determining minimum wage requirements.

(Oklahoma Department of Labor)

1908. First Annual Report: 39-113.

(Oklahoma Department of Labor)

1909. Second Annual Report. (1908/09): 41-91.

(Oklahoma Department of Labor)

1910. Third Annual Report. (1909/10): 67-135.

This report presents the results of an investigation of 225 families for the year 1909, representing about 7,000 persons in the State. The data were gathered from the principal industrial centers of the State, and principally for persons showing annual earning below \$1,000. Questionnaires were mailed out; over 400 reports were returned, and the 225 selected for tabulation chosen from these because stated most exactly. Building trades, miscellaneous trades, school teachers, and railway employees are represented. Information presented includes the following: age, marital status, days employed during 1909, hours per day, number of dependents, number of days unemployed due to sickness, inability to obtain work, and other causes; wage increase or decrease over previous year (qualitative statement) home ownership, value of home, amount of encumbrance on it, rental, number of rooms in house, labor organization membership, rate of wages, total wages during 1909, income from other sources, cost of food, fuel, clothing, sickness, rent, net savings (exclusive of permanent investment and miscellaneous expenses), life and accident insurance, sundries and incidentals; 47 reports were from the building trades, 33 from miscellaneous trades, 106 from school teachers, 32 from railway employees, totaling 223 reports. School teachers' reports were classified by type of certificate held; amount of money spent for attending normals and institutes is tabulated; insurance is lumped with sundries. Summary tables are given, by occupation, of average number of dependents, annual income, annual cost of food, and of daily expenditure for food per person, and average annual cost of living (food, fuel, clothing, sickness and rent).

Packard, E.

1915. A Study of Living Conditions of Self-Supporting Women in New York City. 96 p., illus.

This study was made by the Metropolitan Board of the Young Women's Christian Association among working women of New York City, in March, April and May of 1915. It was desired to determine the actual needs of working girls before deciding upon the plans for a projected boarding home; an investigator lived for a short period at fifteen separate organized "Homes", gaining information through her experiences and through informal interviews with her fellow residents, as also through 140 formal schedules which she obtained. Of working girls not in organized homes, some information was obtained for 842, of whom 535 were personally interviewed and the information which they gave tabulated on schedules. The report presents itemized expenditures per month or year for selected organized homes; nationality and occupation of inmates of such homes; nationality and occupation of those girls living in boarding houses, private families, or apartments, weekly wages and board and room outlay for 423 girls, living away from home, classified by amount of weekly wage; the amount spent for room only is given for 360 girls, classified in the same way, and for 342

girls classified by type of lodging, separating those living in furnished rooms, those living with private families, and those living in apartments; a discussion of rooming house conditions, of conditions in organized homes, recommendation for the socialized apartment house. Appended are specimens of the schedules used, and a map of the city showing the location of organized homes studied.

Peixotto, J. B.

1929. How Workers Spend a Living Wage: Calif. Univ. Pubs. Econ. 5 (3): 161-245.

(Pennsylvania Department of Internal Affairs. Bureau of Industrial Statistics)
1877. Fourth Annual Report. (1875/76): 814-830.

(Pennsylvania Department of Internal Affairs. Bureau of Industrial Statistics)
1880. Seventh annual report. (1878/79): 320-352.

Actual earnings of 498 men employed in 85 different occupations were obtained by mailing questionnaires to these men. Data are presented for each man for the year 1879 on occupation, county, weekly wages, number of weeks worked during year, years in present employ, weekly wage in 1872, composition of family, hours, value of tools used, age, earnings of minors and total earnings of family; expenditures for rent, fuel, groceries, clothing, education, recreation, and total surplus or deficit, and statement as to whether earnings have covered expenses for past five years, are included.

(Pennsylvania Department of Internal Affairs. Bureau of Industrial Statistics)
1882. Ninth Annual Report. (1880/81): 158-174.

(Pennsylvania Department of Internal Affairs. Bureau of Industrial Statistics)
1883. Tenth Annual Report. (1881/82): 68-83.

(Pennsylvania Department of Internal Affairs, Bureau of Industrial Statistics)
1888. Annual report. (1887): 2-15.

(Rhode Island Bureau of Industrial Statistics)
1888. (First) Annual Report. (1887): 47-57.

(Rhode Island Bureau of Industrial Statistics)
1889. Second Annual Report. (1888): 3-55.

(Rhode Island Bureau of Industrial Statistics)
1893. Sixth Annual Report. (1892): 26-150.

Richards, E. H.
1901. The Cost of Food: a study in dietarics. 161 p. New York.

Sherman, H. C. and Gillett, L. E.
1917. The Adequacy and Economy of some city dietarics.
32 p., illus. New York (New York Assoc. for improving the condition
of the poor. Pub. No. 121.)

This study was undertaken because the authors believed that suggestions "as to how to improve upon present food habits should be based on a knowledge of the adequacy of present family dietarics and the relation existing between nutritive value and different types of food." The authors secured one hundred and two family dietarics, each an exact record of the amount and cost of food eaten by a family for a period of seven days during 1914-15. Two thirds of the records were collected by an investigator who visited the families, weighed the

food and supervised very closely the keeping of the accounts. The other third were obtained partly from interested and intelligent housewives who kept their records without supervision and partly from students of Home Economics, who kept records for their families as part of a class project. Ten families had had such close supervision from a dietitian connected with the New York Association for Improving the Condition of the Poor that their food consumption was not regarded as typical and their records were not included in the general averages. All figures are averages in terms of consumption and cost "per man per day", but the scale used for measuring family size in terms of man units is not given. The following facts are presented in regard to the diets at different cost levels, and for the average diet, energy value and content of protein, phosphorus, calcium and iron; percentage distribution of food expenditures among different groups of foods; ounces of various foods consumed per man per day; money expenditures for various foods per man per day.

The 92 dietaries are then arranged in relation to the percentage of expenditure first, for meat, then for grain products, then for milk, then for vegetables and fruit, and finally as to the amount of iron in the diet. Average costs as well as average nutritional content are presented in each arrangement. A method is suggested for computing the "combined" food value of various foods and money costs are compared with this combined food value.

Sydenstricker, E., and King, W. I.

1921. The Measurement of the Relative Economic Status of Families.
Amer. Statis. Assoc. Quart. Pubs. 17 (n.s. 135): 342-357.

United States Coal Commission.

1925. Bituminous Mine Workers and Their Homes.
68th Cong., 2nd Sess., Sen. Doc. No. 195, Pt. 3.

United States Coal Commission.

1925. Living Conditions in the Anthracite Region.
68th Cong., 2nd. Sess., Sen. Doc. No. 195, Pt. 2.

(United States Commissioner of Labor)

1339. Fourth Annual Report. (1338). 631 p. Washington, (D. C.)

(United States Commissioner of Labor)
 1891-1892. Sixth Annual Report, (1890) and Seventh Annual Report, (1891).
 Washington, (D. C.)

On June 13, 1888, the United States Congress passed an act to establish a Department of Labor. Section 7 of that act is as follows:

That the Commissioner of Labor, in accordance with the general design and duties referred to in section one of this act, is specially charged to ascertain, at as early a date as possible, and whenever industrial changes shall make it essential, the cost of producing articles, at the time dutiable in the United States, in leading countries where such articles are produced, by fully specified units of production, and under a classification showing the different elements of cost, or approximate cost, of such articles of production, including the wages paid in such industries per day, week, month, or year, or by the piece, and hours employed per day; and the profits of the manufacturers and producers of such articles; and the comparative cost of living, and the kind of living.

The reports of 1891 and 1892 carry out these instructions with reference to the iron, steel, coal and cognate industries, and the cotton, woolen and glass industries. Initiated in 1888 and completed in February, 1891, they give, as a factor in cost of production in the industries specified, the hours and rates of pay of the men employed; and information on the cost of living and expenditures of these men and their families. Data on earnings, in the iron, steel and related industries were obtained from the payrolls of 99 mills (71 in the United States and 28 in Europe), and were valid for 3491 workers; for the textiles and glass industries, information was had from 125 establishments and covered 56473 workers. Cost of living material, comprehending the same persons as were included in the time and earnings data, was obtained by schedule forms filled out by special agents from 3260 families (770 of them living in Europe), comprising 16,581 persons, in the iron steel industries and from 5284 families (965 of them living in Europe) comprising 27,577 persons in the cotton, woolen and glass industries; classified by states or foreign countries, and by nativity of the head of the family, these returns comprise for all industries the following points: family description (age, sex, occupational status); sources of income; yearly expenditure for food (pounds and cost of about 20 staple articles of diet); expenditures for rent (number of rooms), fuel and lighting (kind), clothing (husband and wife separate, children grouped), furniture and utensils, taxes, insurance, organizations, religion, charity, books and newspapers, amusements and vacations, intoxicating liquors, tobacco, sickness and death, unclassified; contrasted income and expenditure, showing surplus or deficit; descriptive remarks on individual families.

These entries are published separately for each family, so that it is possible to trace any one family through the various tables, which are also summarized by states, all nationalities combined; by nativity of head of family, all states combined; by nativity and state or country; by industries; summaries give number of families included in each classification and average family size, as calculated by the Bureau of Labor Statistics scale (here published).

Separate analysis is made of the income and expenditure recorded on schedules received from 3265 normal families; that is, families that include no boarders or lodgers, that rent their homes, and whose schedules recorded expenditures for fuel, light, clothing and food, that have husband, wife and not more than five children, none of whom are over 14 years of age. These analyses, comprising 1246 families in the iron-steel group and 2019 in the textile-glass group, are offered for each industry separately and for combinations of industries, and gives the following data, classified by states and by number of children in family: number of families; average income per family; average total expenditure per family; average expenditure per family for each of the items, rent, food, fuel, lighting, clothing, sundries. Recapitulations are by number of children, by states and foreign countries, and by industries. Percentage of expenditure spent by normal families for rent, fuel, lighting, clothing, food, and sundries is classified by both states and number in family, and tabulated under income levels of \$100 difference; summaries are given by states alone and by number in family alone. Food consumption data is presented (1) for the individual families, giving locality; husband's nativity, industry and occupation; number and ages of children; size of family in "units of consumption"; yearly quantities used per "100 units of consumption", (an adult male=100) for potatoes, sugar, butter, lard, meat, eggs, flour, coffee, tea; (2) for industries separate and combined, showing number of families; number of children; number of families using each kind of food; quantity consumed and average cost of food per 100 units of consumption; decreasing per capita cost with increasing size of family.

The 1890 report contains the material relating to the iron, steel and cognate industries and to the cost of livelihood of workers therein, while the 1891 report presents the information concerning the woollen, cotton, and glass workers, and also, data on the consumption of food in normal families in the iron-steel industries, in which 1613 "normal families" were used, instead of the 1246 of the next year's publication, revised from the 1890 report.

The comprehensive nature of the report is proven by the fact that the iron-steel returns cover 10 of the United States, and Belgium, France, Germany and Great Britain; the textile-glass returns come from 23 states and Belgium, France, Germany, Great Britain and Switzerland; food consumption figures represents data from "normal" families in 24 states and all of the foreign countries already enumerated.

(United States Commissioner of Labor)

1897. Ninth Special Report. 409 p. Washington, (D. C.)

(United States Commissioner of Labor)
1904. Eighteenth Annual Report. (1903): 365 p. Washington, (D. C.)

This study, conducted from the latter part of 1900 until early in 1902, proposed to give a comprehensive survey of the cost of living for working people in all localities of the United States and without reference to specific industries, thus bringing to date and supplementing the data gathered and published in 1890-91. The information for this report was obtained through personal inquiry made by special agents, who filled out a schedule form that covered the period of one year; these returns represent 33 states, including the District of Columbia, and cover a total of 25,440 workmen's families (124,101 persons), having a yearly income of not over \$1200, and living in the chief industrial centers of the United States. General divisions are as follows: (1) tables dealing with family and household composition of all 25440 families; (2) tables dealing with occupation and earnings, and non-employment, in 24402 families; (3) income and expenditure data for 25440 families; (4) items of expenditure for 2567 families who were able to give such detail; (5) income and expenditure data for 11156 normal families, i. e., having no boarders or lodgers; (6) consumption of food in 1043 normal families; (7) retail prices of food. All tabular material is published separately for the 33 states, and summarized for the country as a whole. "Family size" is measured by the Bureau of Labor Statistics Scale (given in this report).

Tables on family and household composition give the nativity of the heads of families; their condition as regards employment (employed, idle or invalided); the number of families in which the wives are gainfully employed; the age groups and sex of children, and whether at school, at home, or employed; the number and per cent of families having dependents (boarders, lodgers, servants).

Tables on occupation and earnings give the number of heads of families in each specified industry; the number of heads of families in each \$100 group of earnings, classified by industries and occupations; percentages for the foregoing, in those occupations embracing at least 100 persons; heads of families idle for a specified number of weeks, classified by nativity of head of family, and by cause of idleness; number and per cent of heads of families idle for specified causes, classified by industries; per cent of heads of families idle for specified causes, classified by occupations (embracing 100 or more persons).

Tables on income and expenditure are as follows: sources of income, with number and percentage of families under each source, classified by nativity of head of family; expenditures for fuel, lighting, clothing, food, and "other", separately for owners and renters, classified by nativity of head of family; number of families, average size, and averages for income, total expenditure, expenditures for rent, mortgage, fuel, lighting, clothing, food, "other", surplus, and deficit, classified by nativity of head of family; housing conditions of 23,447 families having no boarders or lodgers other than children or relatives, showing number of families, average size, number of rooms per family and per individual for all families and for owners and renters separately, and cost of rent per family, per individual and per room, for renters, classified according to nativity of head of family.

Tables on detail of expenditure in 2567 families show number and per cent of families having an expenditure for specified articles of food, and the average amount of such expenditure; number and per cent of families reporting an expenditure, and average amount of such expenditure for rent, mortgage, fuel, light, clothing for husband, wife and for children, taxes, insurance, organizations, religion, charity, furniture and utensils, books and newspapers, amusements and vacations, intoxicating liquors, tobacco, sickness and death, "other"; number of families having a surplus, and the manner of investing it, and number having a deficit, and the manner of meeting it; all these tables are classified according to the nativity of the head of the family.

Tables on income and expenditure for 11,156 "normal" families give number of families; income per family and per individual, and expenditure per family and per individual, for food, rent, fuel, lighting, clothing, and sundries, classified by nativity of head of family and number of children in family; the foregoing data, classified by nativity of head of family and income levels; income per family, per cent of income expended, and expenditure, amount and per cent, for rent, fuel, lighting, food, clothing and sundries, classified by geographical regions, by general nativity (native or foreign-born) of head of family, and by number of children in family; expenditure per family, amount and per cent, for the foregoing items, classified by number of children and income levels; income and expenditure per individual for the foregoing items, classified by nativity of head of family and number of children.

Tables on the consumption of food in 1,043 "normal" families give quantities and costs (average per 100 "units of consumption") of staple articles of food consumed; average cost of total food consumed (per 100 "units of consumption") for families of varying sizes; classified by nativity of head of family.

The section on retail prices is based on 5,302 schedules obtained from 814 retail merchants in the period from 1890 to 1902, and 5,293 schedules obtained from 511 retail merchants, in 1903; these returns represent prices in the same localities as appear in the cost of living data. The information comprised is as follows: relative retail prices of each of a group of 30 specified foods, for the years 1890-1903 inclusive, the average for 1890-1899 being used as a base, given for five chief regions and for the United States as a whole, with the number of schedules upon which the indexes are based; relative retail prices, 1890-1903 inclusive, for all foods together, given for the five chief geographical regions; per cent of increase or decrease in 1903 as compared with cash year of the period 1890-1902, for each of the 30 specified foods; average quantities consumed, average cost per family, and relative importance of 20 selected items of food (as derived from the returns made by the 2,567 families used in the cost of living data) in 1901, classified according to geographical regions; comparison of average prices per specified unit of measure for 20 selected foods, as computed from 2,567 family budgets and from retail price schedules; for each of these 20 foods, the amounts purchasable for \$1.00, for each of the years 1890-1903 inclusive; average food costs per family, for each year 1890-1903 inclusive, arranged by geographical divisions; general tables showing, by state and locality, the average yearly prices of each food 1890-1903 inclusive, and the average price of each for the period 1890-1899.

Foods for which retail prices are given: apples, evaporated; beans, dry; beef, roasts, stew; beef, steaks; beef, salt; bread, wheat; butter; cheese; chickens; coffee; cornmeal; eggs; fish, fresh; fish, salt; flour, wheat; lard; milk, fresh; molasses; mutton and lamb; pork, fresh; pork, salt, bacon; pork, salt, dry or pickled; pork, salt, ham; potatoes, Irish; prunes; rice; sugar; tea; veal; vinegar.

An index number of retail food prices, continuing the series begun in this investigation has been published regularly in the Monthly Labor Review ever since this work appeared. In 1921 the number of foods included was increased to 43.

States represented in the study are: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, District of Columbia, Virginia, West Virginia, Georgia, Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, Kansas, Kentucky, Tennessee, Alabama, Louisiana, Texas, Colorado, California, Washington.

(United States Department of Commerce and Labor. Bureau of Labor)
1906. Conditions of living among the poor of the District of Columbia.
Bul. 64: 593-697.

(United States Department of Labor. Bureau of Labor Statistics)
1917-1918. Cost of Living in the District of Columbia. U. S. Dept. Labor,
Bur. Labor Statis. Mo. Labor Rev. 5(4): 639-655; (5):
535-546; (6): 1073-1090; 6(1): 1-12; (2): 253-264; (3):
493-505; (4): 769-780; 6(3): 112.

(United States Department of Labor. Bureau of Labor Statistics)
1918. Cost of Living in Shipbuilding Centers. U. S. Dept. Labor, Bur.
Labor Statis. Mo Labor Rev. 6(3): 604; (4): 151-152; (6): 99-
104; 7(2): 132-135; (3): 115-122; (4): 112-120; (6): 115-
146.

(United States Department of Labor. Bureau of Labor Statistics)

1922. Cost of Living in Coal Mining Towns. U. S. Dept. Labor, Bur. Labor Statist. Mo. Labor Rev. 14(4): 617-621.

This investigation was undertaken in order to provide facts about the standard of living of workers in an industry where work is intermittent and living conditions difficult. The study was carried on by the schedule method in 12 coal mining centers located in Illinois, Indiana, Ohio, Pennsylvania, and West Virginia. In each locality data were secured from about 20 families where the chief wage-earner was employed in or about the coal mines, and from five families where the husband was employed in some other industry. From all communities combined the schedules from miners' families number 246 and from non-miners' families 53. For each town there is given for all the families surveyed, and then for the miners' families separately, average size of family in persons, and in adult male equivalents (Bureau of Labor scale), average income per family, average yearly expenditures for food, clothing, rent, fuel and light, furniture and furnishings, miscellaneous items, and all items, number families having either surplus or deficit and the amount, and the number having neither surplus or deficit. For the coal miners' families only information is given by towns on sources of income.

(United States Department of Labor. Bureau of Labor Statistics)

1924. Cost of Living in the United States. U. S. Dept. Labor, Bur. Labor Statist. Bul. 357, 456 p. Washington, (D. C.)

(United States Department of Labor. Bureau of Labor Statistics)

1929. Cost of Living of Federal Employees in Five Cities. U. S. Dept. Labor, Bur. Labor Statist. Mo. Labor Rev. 29 (2): 41-61; (3): 243-259; (4): 241-254; (5): 1-10.

In order to assist the Federal Personnel Classification Board to determine adequacy of government salaries, the Bureau of Labor Statistics collected the expenditures of the families of 506 married employees of the Federal Government in Baltimore, Boston, New York, Chicago and New Orleans for the year ending June 30, 1925. The work done by these employees ranged from common labor to the lower grades of technical work. No postal employees nor any employees receiving more than \$2,500 a year were included. The following facts are given for the families surveyed in each city, classified according to the government salary of husband: composition of family; sources and amount of total family income; average expenses per family for food, clothing of husband, wife, children

and other dependents, housing, heating and lighting, furniture and furnishings, other items, and all items; relation of average income to average expenses; rents paid, and payments on owned homes. Average quantity and cost of individual foods consumed per family and per adult male equivalent are given for all the families surveyed in each city and for all families by income groups. Average expenditures are given for the following items classified first, by income groups for all families and then by cities; health expenses, life, accident and health insurance, retirement deduction, personal property insurance, personal property and poll taxes, church and Sunday school, labor organizations, lodges, clubs and societies, street car fare, etc., automobile payments, automobile supplies and repairs, motor-cycle supplies and repairs, telephone, laundry, barber and beauty shop, tobacco, papers, magazines and books, radio, motion pictures and other amusements, vacation, household incidentals, music dancing and elocution lessons, school tuition and tutors fees, servant hire, gifts outside the home, charity, garage rent, death expense, traveling expense, moving expense, and other items. A final section of the report gives numbers of families in each income group in each city buying on the installment plan; the average deficit for those families in each city buying on the installment plan, and for those not buying on the installment plan, and the kind and average cost of the articles paid for by this method.

(United States Railroad Wage Commission)

1915. Report of the Railroad Wage Commission to the Director General of railroads. April 30, 1915. 150 p., illus. Washington.

This study was undertaken as a general and comprehensive investigation of the pay of railroad employees, the relation to pay in other industries, the relations of pay-levels in different classes of railroad work, and the relation of pay to cost of living. Appendix 2 of the report deals directly with cost of living, giving relative price changes from January 1916 to January 1915 and figures on the expenditures of 265 families collected by newspaper editors in selected cities. The expenditure material is tabulated to show, by income groups and by regional divisions, for 1915 and 1917 the number of adults and minors in the families; the aggregate earnings; the expenditures for rent, clothing, fuel and light, food, furniture and house-furnishings, all other purposes; total expenditure; surplus or deficit; and to show percentage distribution, by income levels and by regions, for 1915 and 1917, of expenditures for the same items. There is also data on the earnings of employees of Class 1, Railroads and of the Pullman Company for 1915, 1916 and 1917.

(Washington (State) Bureau of Labor Statistics)

1903. Sixth Biennial Report. (1907/08): 33-91, 157-171.

(Washington (State) Bureau of Labor Statistics)

1910. Seventh Biennial Report. (1909/10): 37-44, 165-178.

(Wisconsin Bureau of Labor)

1896. Seventh Biennial Report. (1895/96): 177-316.

Worcester, W. F. and D. W.

1911. Family Budgets of Typical Cotton-mill Workers. Report on Condition of Woman and Child Wage-earners in the United States, vol. 16 (61st Cong., 2nd Sess., Sen Doc. 645)

Young, E.

1870. The cost of labor and subsistence in the United States, for the year 1869 as compared with previous years. U. S. Treasury Dept., Bur. Statis. 75 p. Washington, (D. C.).

The statistics presented in this report, "relating to Factory Labor, were prepared from returns made by the proprietors of the various establishments while those relating to Mechanical, Farm and other Labor, and the Cost of Provisions, Groceries, etc. were gathered and tabulated mainly from information obtained and furnished by the Assistant Assessor in the various Collection Districts, all in response to inquiries addressed to them."

Two third of this report is devoted to wage rates in different occupations and different states for 1860, 1867, and 1869, and about one third to unit costs of food of different kinds, of yard goods, and men's heavy shoes, to the rent charged for four room tenements and six room tenements, for board for men and for women in different states in 1867 and 1869. Comparative figures are given

in detail on unit prices of building materials, wage rates in the building trades, and prices of building lots suitable for the dwellings of factory workmen, 1861 and 1869. These prices are not summarized but an additional table gives average weekly expenditures of workmen's families in some of the manufacturing towns of the United States in 1869. Itemized expenditures are given for fourteen different kinds of foods, soap and starch, fuel, oil or other light, other articles, spirits, beer and tobacco, house rent, taxes, benevolent objects, and "total per week, (clothing excepted)" for families of different size and composition.

The author's interest in cost of living is shown by the fact that he prints a table showing (in terms of dollars) the average income and expenditures of three classes of workmen's families in nine different Belgian towns. He does not give the source of these Belgian figures.

Section C. Studies of Costs and Standards of living among
Professional Workers in the United States

For supplementary bibliography see pages 105 - 112

Anonymous

1920 Adjusting salaries of bank employecs to meet changes in the cost of living. Fed. Reserve Bul. 6: 1293-1295

Bruere, M. B., and R. W.

1922 Increasing Home Efficiency (295) p. New York

Henderson, Y., and Davie, M.R. (ed.)

1928 Incomes and living costs of a university faculty. 170 p. New Haven

This study was initiated by a voluntary committee of the Yale Chapter, American Association of University Professors, during the academic year, 1927-28, in order to determine to what extent professors are forced to supplement their salaries from the university, and to establish, as far as possible, some reasonable economic and social standard to which academic salaries must conform. Questionnaires were sent to members of the teaching staff of Yale University, at New Haven, and returns were had from 272, comprising over 60% of the faculty body, and representing majorities among the instructors (63%), the assistant professors (65%), the associate professors (73%) and the full professors (56%).

From the information thus obtained was made up a description of the mode of living, for both single and married professors, at specified economic levels. The various factors in the standard of living are developed separately for the four professional ranks named above; tabular presentation is accompanied by brief discussion. Data comprises family composition and number of dependents wholly or partially supported; distribution by salary groups; salary (minimum, maximum, modal and median) by median age of full-time faculty; actual salaries in 1913, 1918, 1919, 1920, 1927, and salaries that would be equivalent in purchasing power to that of 1913; number having supplementary income, median amount and sources of such income; total income, minimum, maximum and median, for those single and for those married, without children, with one child, with two. Figures on expenditures, also, separate for each rank, show number reporting, and for those single, married, childless or with children; under shelter is shown the median sale value of the house, or median annual rent; domestic service, amount of service and median amount paid; automobiles, most common year of manufacture, median price, class of car, number bought second-hand, average annual mileage; median amounts spent on travel, vacation, membership in professional or social organizations; median age and median income of those reporting savings in some form, and median amounts saved as insurance, as savings or investments, and combined.

Discussion of general conditions covers the following points: number and per cent of the faculty reporting surplus, or deficit, and range of deficit; residence and neighborhood discussed qualitatively; comparison of faculty incomes with those of non-faculty residents of same neighborhood, and with men in business, army, navy, law, medicine, dentistry, ministry, engineering; comparisons of assessed values of residences of faculty and of non-faculty members of graduate clubs; type of salary scale, individual bargaining, length of tenure, effect of size of faculty on increases in salary scale, and consequent relation between university system and economic phases. The actual data upon which these comparisons etc. are based, are to be found in the appendices, where there is given also a copy of the questionnaire used in the study, and a presentation of returns summed up into 54 economic social groups; each group contains cases where conditions are closely similar, and presents individual family expenditures for such items as rent, service, children's education, clubs, travel, books, health, insurance, savings, and investment.

Leeds, J.E.

1917 The Household Budget. 246 p. Philadelphia .

(Massachusetts Bureau of Statistics of Labor)

1874 Fifth Annual Report (1873): 21-27, 161-200, 258-263

(See under this title in Wage-earner section.)

Meeker, R.

1926 A study of costs and standards of living of Minneapolis teachers in relation to their salaries. Central Committee of Teachers Associations. 39 p. Minneapolis.

National Education Association

1913 Report of the Committee on Teachers' Salaries and Cost of Living.
328 p. Ann Arbor.

This report was undertaken for the purpose of determining "whether the increase in teachers' wages has kept pace with the increase in the wages of workers, the increase in the cost of living, and the increased demands upon teachers." It consists of three parts, one giving general material on the increased cost of living; one on the economic and social condition of teachers in Cincinnati, Hamilton, Denver, Atlanta and New Haven; and one on salary schedules, tenure and pensions. The second section presents figures obtained from a questionnaire circulated among teachers in the five cities named above. These figures give information on the age, sex, conjugal condition, number of dependents, home ownership, salaries, savings and property ownership of the teachers. Information is also presented on life insurance carried by teachers, the length of their working day, their educational and professional training, and their expenditures. Detailed figures on expenditures are given for 58 families where the fathers are teachers, separating those who own their own homes from those who do not. The financial situation of these families is tabulated under the following headings in terms of averages for five different income groups; total income; total expenditure; expenditures for rent, (for group not home owners) clothing for husband, wife, children, laundry, life insurance, dues to teachers clubs, religion, charity, educational books and periodicals, amusement and vacation, care of health, educational fees, contributions to school activities, street car to and from school, other transportation costs in attending institutes, etc., and contribution to annuity or retiring funds.

Figures on expenditures of 70 unmarried women teachers not living with parents or other relatives were also obtained by questionnaire. They are presented by income groups, and give averages for the following items; total income; total expenditure, and expenditures for board and room rent, clothing; laundry; and to meet professional demands. This part of the report ends with comments taken from the questionnaires on teachers' costs and standards of living.

(Oklahoma Department of Labor)

1910 Third Annual Report (1909/10): 67-138

(See under this title in Wage-earner section.)

Peixotto, J.F.

1927 Getting and Spending at the Professional Standard of Living. 307.
New York.

This study was carried on at the University of California during six weeks in December 1922 and January 1923, in order to determine (1) the cost of living in the academic world, and (2) the possibility of maintaining a professional standard upon the salary scale then in vogue. Cooperating in the study were 96 faculty families, settled permanently in Berkeley, and representative, in professorial rank, of the whole faculty group; these families were visited by investigators who filled out schedules, usually on the basis of account books, or bills and checks, kept by the persons studied. The data obtained is offered largely in tabular form, but is also discussed in the text; tables include presentation of family composition; professional rank; income and salary ranges; sources of supplementary income; percentage distribution among 30 main items of total expenditures for the 96 families; mean and median amounts, and percentage distribution for 17 items of expenditure (food, shelter, clothing, house operation, and miscellaneous items as enumerated below), for all 96 families, and for 28 families each numbering four persons; mean amounts and percentage distribution of expenditures, divided into food, clothing, shelter, operating, and miscellaneous expenditures, grouped by expenditure levels of \$1000, for the 96 families as a whole; mean and median amounts and percentages spent for shelter, classified according to total amount spent for shelter; number of rooms, by size of family and by income level; mean and median amounts, and percentage which each is of total expenditure, spent for house operation, for light, heat and fuel, ice, telephone and telegraph, service, garbage removal, personal cleaning supplies, house cleaning supplies, house laundry and supplies, furniture and furnishings; stationery and postage, and unclassified; median amounts, and percentages of total spent for all miscellaneous buying and of total expenditure, for the following items: investments, auto, recreation, health, dependents, gifts, educational, professional, incidental, associations, church, charity, tobacco.

Comparisons are developed as follows: food expenditure is correlated with total expenditure and with size of household; clothing expenditure for husbands and wives are compared; a table is offered showing the percentage distribution of \$4800 yearly income (for a family of four persons) among the items food, clothing, shelter, house operation, miscellaneous, investments and savings, based on figures derived from the study in hand, and from E.F. Richards' "Cost of Living" (New York, 1900), Metropolitan Life Insurance Co., Anglo-California Trust Co. (Pittsburgh), Bank of Italy (San Francisco), and the Pacific Oil Co., Amalgamated Oil Co., and Affiliated Co. Expense histories, or budgets, are given for 12 families, showing total income, subdivided according to sources, and total expenditure, subdivided into food, clothing (individual), housing, house operation, and the "miscellaneous" items enumerated above. The appendix gives the form of the schedule used, and the following tables; number and per cent of families reporting under each item of "miscellaneous expenditure", classified by total amount spent on miscellaneous items, and classified by amount of total expenditure; mean and median per cent of total expenditure spent for each item of miscellaneous expenditure, classified by amount of total expenditure, mean and median percentage of total amount of miscellaneous

expenditure spent for each item; number and per cent of families reporting under each item of "miscellaneous expenditure", classified by total amount spent on miscellaneous items, and classified by amount of total expenditure; mean and median per cent of total expenditure spent for each item of miscellaneous expenditure, classified by amount of total expenditure; mean and median percentage of total amount of miscellaneous expenditure spent for each item of miscellaneous expenditure, classified by amount of total expenditure; and classified by total amount spent on miscellaneous items; mean and median amounts for each item of miscellaneous expenditure, classified according to amount of total expenditure.

Pittsburgh Teachers' Association, Inc.

1927 Survey of the salaries of teachers in the public schools of Pittsburgh in relation to the cost of living. 98 p. Pittsburgh.

This study was made by Dr. Marian McVoy and Dr. Colston T. Tarne, of the Department of Economics, University of Pittsburgh, during the period February to June, 1927, to obtain data bearing upon adequate remuneration for teachers in Pittsburgh Public Schools, and other information was obtained from the National Education Association, and from previously made surveys which bore a direct or related connection to the study in hand. The report covers the following points: Increases, absolute and percentage, in teachers' salaries, compared with increase in cost of living, 1900-1921; frequency distribution of teachers according to training, according to years of experience, and according to salary levels (this last for 1915-1927 inclusive); extra earnings; maximum salaries for men and women teachers in fifteen selected cities, 1904-1927; comparison of salaries and working days per year of Pittsburgh teachers with rates of pay and working days per year of certain skilled artisans, comparison of changes in pay of teachers, school officials, municipal employees, and unskilled workers, in Pittsburgh; tables of rents paid and rental value of homes owned by teachers classified by number of dependents, grade taught, and types of quarters occupied; average food costs also classified by number of dependents and grade taught; yearly expenditures (in detail) for seventy-one elementary school and twenty-one High School teachers in Cincinnati; estimated yearly budget (in detail) for a married man, wife and two children, as worked out by the Board of Education, of Chicago; minimum yearly budget, and a second, more liberal budget (divided into Food, Rent, Clothing and Miscellaneous) for an unmarried woman teacher in Minneapolis; a yearly budget, quantity, quality and cost for a "standard" family of five persons, in Minneapolis.

PART II

STUDIES OF LIVING COSTS BASED ON QUANTITY BUDGETS.

For supplementary bibliography see pages 105-112.

California. Special committee on cost of living in California for selected family groups.

1923 Cost of Living Survey. Report of the California State Civil Service Commission relative to the cost of living in California for Selected Family Groups. 84 p. Sacramento

This study was made by a special committee composed of one member of the California State Service Commission, Mr. J. C. Whitman, and four members of the faculty of the University of California, Miss Peixotto and Messrs. Blum, Jaffe, and Spraul, with the purpose of preparing five budgets indicating satisfactory health-and-comfort standards of living for laborers, clerks, and executives in the State employ. Prices were collected at two periods, October, 1920 and November, 1921, in San Francisco, Los Angeles, and Sacramento; these prices were then applied to quantity budgets based partly upon experience and partly upon judgment.

The food budgets presented are based upon the nutritional standards of Professor Jaffe. The pamphlet presents in detail quantity and cost budgets for single men and women clerks, and for families of different size in the manual labor, clerical and executive groups. Detailed clothing budgets are presented for the three income levels for the man, his wife, boy of eleven, girl of five and boy of two.

Cincinnati League of Women Voters. Living Costs Committee
1928 Spending the family income. 50 p. Cincinnati

The original purpose of this study was to prepare a standardized budget for the use of all relief agencies in Cincinnati. "As the study progressed the committee realized that a "minimum requirement" budget exceeded in cost the wages paid to unskilled and semi-skilled workers in Cincinnati, and the conviction grew that this important fact should be presented to the public." The budget presented is the result of the efforts of a committee of thirteen, four members of the staff of the school of Household Administration of the University of Cincinnati; one student of the University of Cincinnati, and six representatives of Cincinnati Social Agencies. It is divided into nine sections as follows: Food, Health, Clothing and Textiles, Housing, Operating Expenses, Leisure time activities, Savings and Investments, Financial Summary, Conclusions and Recommendations.

All expenditures are analyzed in detail. The food budgets present in quantity and cost, food allowances for a family of two adults and three children, one adult requiring 2800 calories, a child of 2-5 years, a child of 5-8 years, and an individual of 12-18 years, with suggestions for modifying these allowances under different circumstances. "In calculating the allowances, due consideration was given to the energy requirements, the distribution of calories, mineral and vitamin needs." The food lists were tested by a limited number of dependent families under the supervision of students taking the social program of the college of Liberal Arts, University of Cincinnati and a group of Mothers Pension families who were included in the annual project of the School of Household Administration University of Cincinnati.

Five clothing budgets are given with details as to quantity, materials, and costs of garments. The budgets presented plan for the clothing of a father, mother, daughter 12 years old, son 14 years old, and baby 3 years old.

Housing requirements are worked out in detail on different levels, because of the large number of low paid workers in Cincinnati.

Cleveland, Associated Charities. - Home economics committee.

1928 A suggestive budget for families of small income, 34 p., illus.
Cleveland

In attempting to do constructive social case work with dependent families, the Cleveland Associated Charities came to define wisely administered relief as "relief that is adequate, relief that is given on a health and not on an existence basis; relief so given that it will tend to the development of character and not undermine the desire for self support." The budget worked out by the Associated Charities Home Economics Committee had contributed so much to the development of social work in the city that it was decided to publish it for the use of individual families as well as for the use of social workers.

Food allowances are given for a man, a woman, boy 15-18, girl 15-18, child 11-14, child 7-10, child 2-6 years old, child 15-24 months old, and child 12-15 months old. They worked out on the basis of the recommendations of doctors from two different hospitals and the Western Research University Medical School, and are given in detail as to kinds of food, quantities and costs.

Clothing allowances are presented in detail for a man, a woman at home or working, a working girl, a working boy, a boy 10-16, a girl 10-13, a girl 6-10, a boy 6-10, a girl 2-5, a boy 2-5 years old, and an infant. "Minimum" and "Maximum" allowances are given for each item.

No figures are given for education, church expenses, insurance and other savings, car fare, newspapers because of extreme variations in the needs of individual families. Rent, gas, electricity and kerosene are also left to be decided in a given situation. Normal expense for coal for one stove is given. Expenses for cleaning materials and replacement of household articles are itemized in quantity and price.

Edson, K. P.

1919 A study of the cost of living. Industrial Welfare Commission,
California. 4 p.

Harry, D. P., Jr.

1928 Cost of Living of Teachers in the State of New York, 185 p. New York.

Kansas: Women's Division of the Court of Industrial Relations
1922 Cost of Living Survey, Topeka, 42 p.

Nesbitt, F.

1927 Study of a minimum standard of living for dependent families in
Los Angeles. Community Welfare Federation, Los Angeles. 36 p.

Nesbitt, Florence

1929 The Chicago standard budget for dependent families, Chicago Council
of Social Agencies, Bul. 5, (3rd revised edition) 52 p. Chicago

A number of years ago, at the request of representatives of agencies engaged in family rehabilitation, the Chicago Council of Social Agencies prepared and published "The Chicago Standard Budget for Dependent Families." From time to time revisions have been made to meet fluctuations in the cost of living.

The basis on which the budget is made up is defined as follows: The minimum normal standard must furnish everything necessary for a manner of living "that will make possible a high standard of physical, mental and moral health and efficiency for adults, the full physical and mental growth and development of children, and provision for their moral welfare."

Food allowances listing kinds of foods, quantities, and costs are given for a man at moderately hard muscular work, boy 15-18, child 9-11, child 6-8, child 2-5 years old, for babies 6 months to 2 years of age, with suggestions for adapting the allowances to the need of persons with different caloric requirements. The standard set for the food of the man at moderately hard work is food that furnishes 3,500 to 3,600 calories of fuel, 75 to 100 grams protein, .7 to 1 gram lime, at least 2.75 grams phosphorus and 15 milligrams iron.

The clothing budgets presented are based on lists of clothing purchased obtained by social workers from families which "to their own knowledge were adequately clothed, and where they believed the management to be good." The lists are detailed as to kind, number, material and cost of garments. They provide for the clothing of a man at ordinary outside laboring work, woman at home, woman or girl at work in neighborhood factory or shop, boy at work in neighborhood factory or shop, school girl 10-12, school boy 10-12, school girl 5-9, school boy 5-9, child 1½-4 years old, and for an infant.

Recommendations for fuel consumption represent average usage in Chicago. Directions are given for computing cost of gas and electricity under different circumstances.

An inventory of the minimum household furnishings and supplies for a family of five or six persons, is given without cost figures, but annual replacement of household supplies and furnishings was secured from families maintaining "a reasonable condition of comfort and cleanliness" and is presented with quantities and costs. Furnishings for a baby's bed are itemized with quantities and costs.

Money expenditure for education is limited to the purchase of a daily paper and 15 cents a month for supplies for each child of school age.

No estimate is made of housing cost, carfare, or insurance as it is expected these expenses must be worked out for each individual family.

It is recommended that working children who turn their wages into the family income, be allowed spending money for recreation and education, and that a small allowance should be made to other members of the family for recreation.

Health expenditures are placed very low, since it is anticipated that public physicians and nurses will be used.

The pamphlet concludes with a "minimum" budget for the self supporting family, indicating why expenses in such a family are necessarily higher than in a dependent family of the same composition.

National Industrial Conference Board

1919 The cost of living among wage-earners, Fall River, Massachusetts
October, 1919. 18 p. Boston (Research Report No. 22)

This study, conducted in October, 1919, among a group composed largely of cotton mill operatives in Fall River, Massachusetts, had for its aim the determining of the cost involved in maintaining a wage-earners family at (1) a "minimum" standard and (2) a more liberal standard of living. On the basis of several studies made by other authorities, a "standard" budget was evolved, and prices prevailing in Fall River were applied to it; information on costs and standards of living was obtained from social and community organizations; figures to show the general increase in cost of living over a five-year period, were supplied by clothing and retail stores, by coal dealers, by corporations and associations, and by individuals closely in touch with local conditions. The report comprises the following data: weekly food budgets, quantities and cost, for a family consisting of man, wife and three children under 14 years of age; yearly clothing budgets, quantities and costs, for a man, a woman, a boy 13-14, a boy 5-6 and a girl 8-9 years old; weekly rates for rent, coal, wood, gas and electricity; sundry expenses, itemized, and on both a weekly and yearly basis, for a family of five persons; the complete budget divided into expenditures for food, clothing, rent, fuel, heat and light, and sundries, given on both a weekly and yearly basis for a family of five persons; percentage of increase in expenditures for each of these items in October, 1919 as compared with October, 1914; percentage distribution of the cost of these items in 1914 and in 1919, as compared with the percentage distribution for the country as a whole in 1914. Quantities, costs and percentages are given for both standards of living, except in the clothing budgets, which represent only the second more liberal standard, and are estimated to demand an expenditure 25% higher than would be called for by "minimum" clothing requirements.

National Industrial Conference Board

1919 The cost of living among wage-earners, Lawrence, Massachusetts,
November, 1919. 21 p. Boston (Research Report No. 24)

This study was conducted in November, 1919, among the textile operatives of Lawrence; its purpose was to determine the cost of maintaining, first, a "minimum but reasonable standard of living" and second, a somewhat more liberal standard, for representative wage-earners' families. Information on living conditions was obtained from social and community organizations; prevailing prices were collected and applied to standard budgets developed in the previous Fall River survey; results thus obtained were checked by data on actual family expenses from 350 mill operatives. The report presents the following information: a "minimum" weekly food budget, quantities and cost, and a more liberal budget, for a family consisting of man, wife, and three children under 14 years of age; a minimum yearly clothing budget, quantities and cost, and a more liberal budget, for each member of such a family; "minimum" rental cost, based on data obtained from 350 operatives and from a mill that had records

of the rents paid by 85 of its employees, from April to October, 1919; cost of coal, wood, gas and electricity; sundries, itemized, for a family of five persons, according to both the "minimum" and the more liberal standards; the complete budget, divided into Food, Shelter, Clothing, Fuel, Heat and Light; and Sundries, for a family of five persons, for both "minimum" and more liberal standards of living; percentage increase in the cost of these items between November, 1914 and November, 1919; percentage distribution of total expenditures among these main items of outlay, for Lawrence, 1914 and 1919, and for the country as a whole, 1914.

National Industrial Conference Board

1920 The cost of living among wage-earners, North Hudson County, N.J.
January 1920. 20 p. New York (Special Report No. 7)

This study, was made in January, 1920, among the silk mill employees of West Hoboken, Union Hill and West New York, with a view to establishing (1) the sum necessary for maintaining a "fair minimum" standard of living for a family of five persons, and (2) a comparison of price levels in 1914 and in 1920. The requirements of a family consisting of man and wife, and three children under 14 years of age, were "determined from the results of previous studies and modified to meet prevailing conditions"; local prices, charges, etc. to be applied to these requirements were collected from reliable sources. The information presented in the report comprises: a discussion of the population (density and nativity) of the three communities; a "minimum" weekly food budget, quantities and costs (these latter based on prices from 21 stores), for a family of 5 persons; average "minimum" expenditures for rent, fuel, heat and light; clothing budgets, quantities and costs, for a man, woman, boy 13-14, boy 5-6, and girl 9-10 years old; expenditures for "sundries," itemized and on both a weekly and a yearly basis, for a family of five persons; "minimum" budget, divided into food, rent, clothing, fuel, heat and light, and sundries, for a family of five persons; expenses of an unmarried woman, as a member of a family unit, for home expenses, clothing, and sundries (itemized); increase in cost of living since 1914 for a family of five persons -- percentage increase for each of the main budget items, and a weighted average of all items.

National Industrial Conference Board

1920 The cost of living among wage-earners, Greenville, South Carolina, Pelzer, South Carolina, Charlotte, North Carolina, January and February, 1920. 27 p. Boston (Special Report No. 8)

This study was made by the National Industrial Conference Board to determine the cost of maintaining a "fair minimum standard" of living among wage-earners in representative cotton mill cities of the south. Greenville and Pelzer, S.C., and Charlotte, N.C., were the localities chosen, and the data was collected during three weeks in January and February of 1920. The method followed was that of applying current prices of goods and services to a basic budget compiled from reliable information already assembled. The results are presented for the three cities separately, and comprise the following: description of the communities; "minimum" food budget, modified to conform to prevailing local food habits, for one week's food for man, wife, and three children under fourteen (quantities and costs, the latter based on quotations from more than 30 stores); average "minimum" rents; clothing budgets (quantities and costs) for man, woman, boy 13-14, boy 5-6, and a girl 8-9 years old; average cost, weekly and yearly, of coal, wood, electricity and kerosene; sundries (itemized), weekly and yearly for a "standard" family of five persons; a complete budget, weekly and yearly, of the expenditures of a family of five, divided into expenditure for food, shelter, heat, light and fuel, clothing and sundries; the average percentage increase for each of these five items of outlay, between January-February, 1914 and January-February, 1920, in a "minimum" cost budget for a family of five persons.

National Industrial Conference Board

1920 The cost of living among wage-earners, Cincinnati, Ohio, May 1920
New York (Special Report No. 13)

National Industrial Conference Board

1920 The cost of living among wage-earners, Worcester, Massachusetts, June, 1920. 16 p. New York. (Special Report No. 16)

National Industrial Conference Board

1921 The cost of living among wage-earners, Detroit, Michigan, September, 1921, 24 p. New York (Special Report No. 19)

This study was conducted by the National Industrial Conference Board to determine the minimum cost of maintaining a "fair American standard of living" among the wage-earners of Detroit. No figures on income or expenditure of individual families were collected, but during the two middle weeks of September, 1921, "a survey was made of actual conditions"; social and industrial organizations, and individuals, furnished data to this end, and wage-earners were visited in their homes, and observed on the streets, at work, and in their recreations. Prices of goods and services were obtained from sources patronized by working people, and applied to quantity budgets which were developed from information previously assembled by reliable agencies, and adapted to the locality under investigation. The report presents general estimates as follows: a "minimum" food budget (quantities and cost) for one week, for a family consisting of man, wife and three children under 14 years of age, based on prices obtained from chain systems controlling 495 stores; percentage of families owning, renting, or rooming, and percentage renting at five different rent levels, based on responses from 275,000 persons; "minimum" clothing budgets (quantities and cost) for a man, a woman, a boy of 13-14, a boy of 5-6, a girl of 8-9 years; "minimum" weekly cost of coal, gas, and electricity; "sundries," itemized, for a family of five persons, yearly and weekly; a "minimum" budget, divided into food, shelter, fuel, light and heat, clothing, and sundries, for families with one, two, three, and four children, "minimum" weekly and yearly budget, divided into board and room charges, clothing, and sundry expenses (itemized), for an unmarried male wage-earner.

National Industrial Conference Board

1922 The cost of living among wage-earners, Anthracite Region of Pennsylvania, February, 1922, 43 p. New York (Special Report No. 21)

This study was undertaken by the National Industrial Conference Board in an effort to determine the actual cost of maintaining a "fair minimum American standard of living" among anthracite mine workers. The material was collected during the four weeks of February, 1922 in thirty-six cities and settlements of the Anthracite region in eastern Pennsylvania. Although a study of the living conditions among mine workers, the data was not secured directly and exclusively from miners and their families, but instead the following method was used: current prices were obtained for the principal items entering into family living, and applied to basic budgets obtained in earlier studies; these basic budgets were readjusted to conform with prevailing standards of living as ascertained from merchants, social workers, clergymen, union officials, bankers, real estate brokers, coal companies, and miners themselves. The information comprises a "minimum" food budget, giving quantities and costs; a "minimum" clothing budget, articles and costs; probable expenditures for fuel, light, clothing budget, articles and costs of recreation, reading and

other lesser expenses; a discussion of housing conditions and of rentals and water rates, and also of facilities and costs of recreation, reading material, insurance, medical care, organizations; a table giving the average cost, on both a weekly and a yearly basis, of maintaining a "minimum American standard" for families of differing composition, and for single men, in each of the three major coal fields, and in the anthracite region as a whole. There is also a table showing the percentage of change, between July 1920 and February, 1922, in the cost of maintaining such a "minimum standard".

National Industrial Conference Board

1926 The cost of living in New York City, 1926. 129 p. New York

This study represents an attempt to determine the minimum cost, in each of the five boroughs of New York City, of maintaining a "fair American standard of living". The material was collected in the spring of 1926, in those sections of the city in which native born whites, of Irish and of German parentage are the predominant factors in the population; the group under consideration comprises industrial workers and office workers, regarded as family units, as unmarried men with no dependents, and as unmarried women with no dependents. The method followed was that of applying prevailing rates to a basic budget; food requirements per person were worked out on a calorie basis; fuel and light were related to the number of rooms, which in turn were based on "health and decency standards"; clothing budgets were adopted for man, woman, boy, and girl; for unmarried workers, commercial rates for board, room, laundry and so forth, were determined; then, in the chosen neighborhoods, prices for goods and services, and additional facts and figures making for an adequate interpretation, were obtained from over 1000 persons, firms, and organizations.

Results are offered for the five boroughs separately, and may be compared; they include a general discussion of housing -- shortage, standards, minimum rentals for various types of dwellings, fuel and lighting; "minimum" food requirements of a family of five or six, for one week, quantities and costs; itemized clothing budgets for a man, a woman, a boy of 12 years, a boy of 2 years, a girl of 8 years; a discussion of expenditures for "sundries," covering classification for transportation, recreation, reading matter, stationery, postage, telephone, health, insurance, organizations, church dues, candy, cleaning, supplies, etc., furniture and furnishings. For industrial workers and office workers separately, figures are presented to show the average "minimum" outlay for rent, fuel and light, food, sundries (itemized) of families of different composition; yearly clothing budgets (quantity and cost) for husband, wife, twelve-year old son, two-year old son, eight year old daughter, and for unmarried female, self-supporting; the average minimum yearly and weekly cost (detailed expenditures) of maintaining a fair standard of living, for unmarried male and female workers.

National Industrial Conference Board

1926 The cost of living in the United States, 1914-1926. 233 p. New York.

National Industrial Conference Board

1928 The cost of living in twelve industrial cities. 76 p. New York.

New York (City) Charity Organization Society

1925 A method for determining adequate clothing allowances for dependent and low income families. 25 p. New York

New York Nutrition Council. Committee on Economic Standards.

1922 Good nutrition and adequate food allowances for the family.
16 p. New York

This pamphlet "undertakes to answer in simple terms the question of diet suitable for children of different ages, how to determine the cost of such a diet, and simple nutrition facts which every social worker ought to know." Economical diets which will provide adequate nutrition, approved by Dr. Mary E. Rose of Teachers College, Columbia University, are given in terms of kinds and quantities of foods, calorie content and average cost in New York City, for children under two, children two to five, children five to twelve, children twelve to sixteen, and for children over sixteen and adults. The money cost of diets providing extra nourishment in cases of mal-nutrition, tuberculosis or other conditions, where extra nourishment is needed is calculated for each age group. A bibliography on food needs is appended.

United States Bituminous Coal Commission

1920 Majority and minority reports of the United States bituminous coal commission to the President 120 p. Washington, D.C.

In September, 1919, the rise in the cost of living during the World War, combined with unsatisfactory conditions in the coal mining industry inherited from the pre-war period, brought about a request from the United Mine Workers of America for a 60 per cent increase in wage rates throughout the Central Competitive Field and certain changes in working conditions. The request was refused and a strike resulted. Through the efforts of Woodrow Wilson, then President of the United States, the men returned to work with a 14 per cent increase in wages, and a commission was appointed to investigate the situation. The minority report of the commission (that of the representative of the mine workers) contains a minimum-comfort budget prepared by Professor W.F. Ogburn. The budget as printed gives the money cost of a minimum comfort budget "adjusted to the peculiar needs of mine-workers and to the peculiar conditions of the mining towns". The budget covers needs of a family of five and gives the figures on costs for the following items: food; clothing for husband; wife; boy 11; girl 5; boy 2 years old; housing, fuel, and light; miscellaneous living expenses; explosive, smithing, etc.

United States Department of Labor, Bureau of Labor Statistics.

1919 Tentative quantity and cost budget necessary to maintain a family of five in Washington, D.C. at a level of health and decency. 75 p.

The primary aim of this study was to furnish information on cost of living for use by the Joint Commission of Congress on Reclassification of Salaries for government employees. The budget is intended to give "the minimum of health, decency and comfort." "This budget does not include many comforts which should be included in a proper 'American standard of living'. Thus no provision is directly made for savings other than insurance nor for vacations, nor for books and other educational purposes. On the other hand, a family with the items listed in this budget should be able to maintain itself in health and modest comfort. It should have a sufficiency of food, respectable clothing, sanitary housing, and a minimum of the essential sundries." The entire budget gives kinds and amounts of goods and services planned for, and their cost in Washington in 1919.

A detailed food budget is given for a family of five, in terms of kinds of foods, quantities and costs. The quantities chosen as representing the minimum food requirements of a family of five were obtained by averaging actual amounts of food used by 280 selected families with three children of about the ages indicated. The families chosen averaged in size approximately 3.35 equivalent adult males and purchased 3,500 calories of food per day. "By comparison with a recognized standard, the average dietary of 3,500 calories thus obtained was found to consist of meat, milk and vegetables, etc. in such proportion as to furnish the body in a general way with the necessary amounts of proteins, fats, carbohydrates, mineral constituents, acids and other substances necessary for the maintenance of health".

The quantities of clothing required by the standard family were arrived at by personal interviews with government employees and their wives, and others familiar with the standard of living required of the government worker's family in Washington, and were checked with several previous studies, particularly with the clothing purchases of approximately 850 families with children under 15, secured by the Bureau of Labor Statistics in 1918-19. Detailed figures are given for man, wife, boy 11, girl 5, and boy 2 years old.

Housing standards are described in some detail. Annual upkeep of furniture and furnishings was figured on the basis of an annual expenditure of 6 per cent on the total value of the furniture and furnishings of the usual household of persons of moderate means, plus an additional allowance for gas mantles and electric bulbs, curtains and a few other articles which could not be estimated quantitatively. A list of the furniture and furnishings priced in obtaining the estimate of total value is given in an appendix.

An allowance is made for assistance to the wife, in housework or laundry work, from one person for one day each week. Expenditures for cleaning supplies and services are planned for in detail. The expenditure for health is planned for on the basis of past expenditures of government employees. The premium for life insurance for the chief wage-earner is planned on the assumption that policy will be taken out at 35, the age when most policies are actually written.

Expenditures for recreation were allowed for on the basis of the average expenditures of the families of 64 families of government employees. No allowance is made for vacation. The budget provides for carfare, a daily newspaper, modest contributions to the church, membership in a labor organization, and one dollar a week for incidentals.

United States Department of Labor, Bureau of Labor Statistics.

1920 Minimum quantity budget necessary to maintain a worker's family of five at a level of health and decency: 20 n.

"This tentative quantity budget for a worker's family constitutes this Bureau's best estimate at this time of what should be included in the family budget of the working man. The Bureau was assisted in compiling this budget by the committee to study the Relationship of Standards of Living to Health, of the National Conference on Social Work, and especially by Miss Caroline L. Hunt, Office of Home Economics, United States Department of Agriculture."

The organization of this quantity budget is very similar to that of the tentative quantity and cost budget published by this same Bureau and analyzed just above.

The chief differences are as follows: The quantity budget, as its name suggests, gives kinds and quantities of goods and services, but no costs. The food budget is presented in much greater detail and on a yearly instead of a weekly basis, and a new table is given itemizing weekly quantities of year-round, winter season and summer-season foods. The clothing budget first published has been revised after consultation with clothing experts all over the country, and the annual replacements planned have been divided into summer clothing, winter clothing and year-round clothing. Housing standards are made more specific with average figures on houses and apartments occupied by families in 20 cities surveyed in 1918-19. A standard of one room per person, plus one complete bath room with toilet was adopted as the minimum requirement consistent with health and decency. Size of rooms and requirements for light, ventilation and construction as defined by the Bureau of Industrial Housing and Transportation of the Department of Labor were adopted.

Fuel consumption depends so much upon geographic location and climatic conditions that an attempt to estimate a minimum quantity standard seemed impossible.

United States Department of Labor. Bureau of Labor Statistics.

- 1922 (1) Methods of Determining the cost of living
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 U.S. Dept. Labor. Bul. Labor Statis. Mo. Labor Review.
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The first article given above outlines in detail the methods used by the American Rolling Mills Co., the Holt Manufacturing Co., the National Industrial Conference Board, and the U.S. Bureau of Labor Statistics in determining changes in the cost of living in the United States. Lists of the commodities on which prices are regularly collected and the methods by which these prices are averaged by each agency are presented. A note attached to the lists of articles used by the Bureau of Labor Statistics explains that the lists are given as a repre-

sentative list of articles upon which price changes are based, but is not intended as a complete budget of family needs in any of the groups presented.

The second article gives average changes in cost of living, as computed by the Bureau of Labor Statistics in 32 different cities in the United States. For 19 cities figures are given for price changes from December, 1914, and in 13 cities from December, 1917. The figures for the individual cities are combined with figures on prices in 1913 to give price changes for the United States from 1913 to March, 1922. Figures on price changes for each city and for the United States are given for food, clothing, housing, fuel and light, furniture and furnishings, miscellaneous items, and all items - (Note: This index number has been continued by the Bureau of Labor Statistics and is published semiannually in the Monthly Labor Review.)

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